DEFENDER®

Pro Widescreen DVR
User Manual

Warranty Information

Please visit our website at www.defender-usa.com for information about your product's warranty.

We take quality very seriously. This is why all of our products come with a one-year warranty from the original purchase date against defects in workmanship and materials. If you have warranty or support issues, please contact us using any of the following methods:

Web: www.defender-usa.com

Support: www.defender-usa.com/support

DEFENDER® Canada
4080 Montrose Road
Niagara Falls, ON
Canada L2H 1J9

DEFENDER® USA
60 Industrial Parkway #Z64
Cheektowaga NY
USA 14227

Warranty Terms

1. DEFENDER® products are guaranteed for a period of one year from the date of purchase against defects in workmanship and materials. This warranty is limited to the repair, replacement or refund of the purchase price at DEFENDER®'s option.
2. This warranty becomes void if the product shows evidence of having been misused, mishandled or tampered with contrary to the applicable instruction manual.
3. Routine cleaning, normal cosmetic and mechanical wear and tear are not covered under the terms of this warranty.
4. The warranty expressly provided for herein is the sole warranty provided in connection with the product itself and no other warranty, expressed or implied is provided. DEFENDER® assumes no responsibilities for any other claims not specifically mentioned in this warranty.
5. This warranty does not cover shipping costs, insurance, or any other incidental charges.
6. You MUST contact DEFENDER® before sending any product back for repair. You will be sent a Return Authorization number with return instructions. When returning the product for warranty service, please pack it carefully in the original box with all supplied accessories, and enclose your original receipt or copy, and a brief explanation of the problem (include RA #).
7. This warranty is valid only in Canada and the continental U.S.
8. This warranty cannot be re-issued.

CAUTION

RISK OF ELECTRIC SHOCK, DO NOT OPEN UNIT

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (BACK).
NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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What's Included

- DVR with HDD
- 1 Power Adapter
- 2 BNC to RCA Connectors
- RJ-45 Ethernet Cable
- HDMI video cable
- Instruction Manual & Software CD
- USB Mouse
- IR Remote Controller with batteries
- Quick Start Guide
- 1 Year Warranty
- Lifetime Customer Support

DISCLAIMERS

Using lowest quality settings at 1 FPS.

Defender highly recommends the use of an Uninterruptible Power Supply (UPS) with surge protection for all products.

Although the cameras are weather resistant, they are not weatherproof. Not for use in direct exposure to water, rain or snow.

Requires broadband router and broadband internet connection—not included. Internet browser is required. Must set up user profile in menu before using.

DEFENDER® does not endorse any DEFENDER® products for illegal activities. DEFENDER® is not responsible or liable in any way for any damage, vandalism, theft or any other action that may occur while a DEFENDER® product is in use by the purchaser.

We reserve the right to change models, configuration, or specifications without notice or liability. Product may not be exactly as shown.

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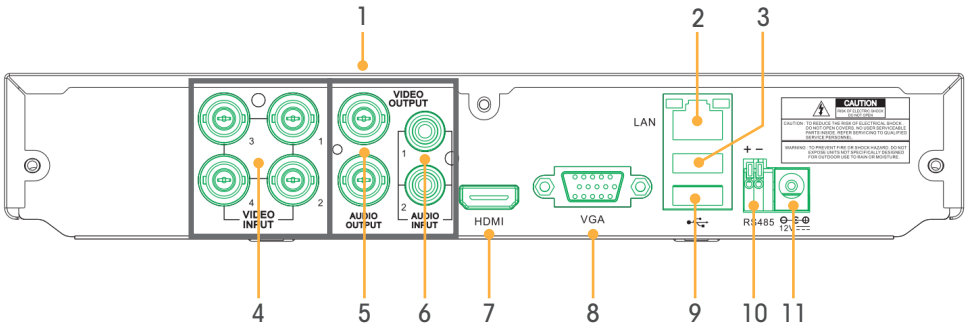
Buttons and Connections

DVR Back
*May not be exactly as shown



1	Video Output	Accepts up to two monitors	7	HDMI Input	Connect HDMI cable
2	LAN Connection	Connects to router	8	VGA Input	Connect VGA cable
3	USB Mouse Port	Connect to USB Input (before power up)	9	USB Port	Connect USB drive for backup
4	Camera Connect	Camera connections (4/8 or16 Channels)	10	PTZ Input	Connects to two-wire PTZ camera (not included)
5	Audio Output	Connects to speaker or audio input	11	Power Connection	Connect power adapter
6	Audio Input	Accepts a microphone and/or audio-supported camera (not included)			

Mouse

1	Select	Click to select highlighted object
2	Scroll Wheel	No function for DVR
3	Deselect	Click to exit current menu. Opens submenu in LIVE view
4	USB Connection	Connect to top USB port on back of DVR

Buttons and Connections

Remote

1	Numeric Keypad	Select 1-8 to display selected camera in full screen
2	All	View ALL cameras
3	Directional Arrows	Navigate menus
4	Audio/Search	Search/find channels with audio-supported cameras (not included)
5	Rewind	Rewind footage
6	Record	Start recording
7	Pause	Pause playback/starts & stops seq mode
8	Menu	Enter main menu / Exit current menu
9	Select/Enter	Press to select highlighted object
10	Mute	Mute sound (with audio-supported cameras, not included)
11	Play	Displays playback menu
12	Fast Forward	Fast forward playback video
13	Stop	Stop recording/Stop playback video

Basic Setup

Things to consider before installation

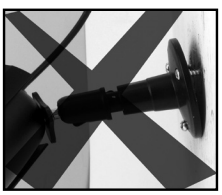
- The camera should be installed between 8ft and 13ft above the area to be monitored.
- Before screwing in the camera mount, please ensure there are no obstructions in the camera's view.
- Place cameras in strategic areas to provide the most detailed footage i.e. recording video of every visitor.
- Having the camera in the open for people to see can help deter criminals.
- To cover large, dark areas such as backyards, garages, and driveways, place cameras in strategic locations, such as on the roof or deck, this way, less cameras are needed to cover an area.
- Ensure that the sunshade is positioned to avoid glare and be sure to position camera away from direct sunlight or other light sources.
- For best results, the light in front of the camera should be about the same brightness as the light around the area or object being monitored.
- Decide whether the camera will be wall-mounted, ceiling-mounted*, or sit on a desk/tabletop. If you are mounting the camera on a wall or ceiling*, use the included mounting hardware. We recommend that the mounting bracket is secured using the included screws for all installations.
- Each camera comes with 65ft of video/power wire. Please make sure that you mount the cameras no more than 195ft from the DVR. If longer wiring distance is required, extension cables can be purchased (21007/21008/21009) from your local re-seller or at www.defender-usa.com.
- We recommend using a surge-protected power bar to protect the camera's internal circuitry.

Mounting the cameras

1. Decide if the camera will be wall-mounted or sit on a desk/tabletop. The camera can be adjusted for either mounting scenario by rotating it to the required position.
2. Screw the mounting bracket into the camera's mounting hole, turning it clockwise.
3. Mount the camera in the desired location no more than 65 ft from the DVR unless you have purchased additional wiring. You may mount the cameras on a wall, ceiling* or desk.
4. Ensure that the cameras are strongly secured.
5. Adjust cameras to the desired viewing angles.
6. For additional help on mounting the cameras, please see the drilling template, located at the back of the manual.

Adjust camera to desired viewing angle

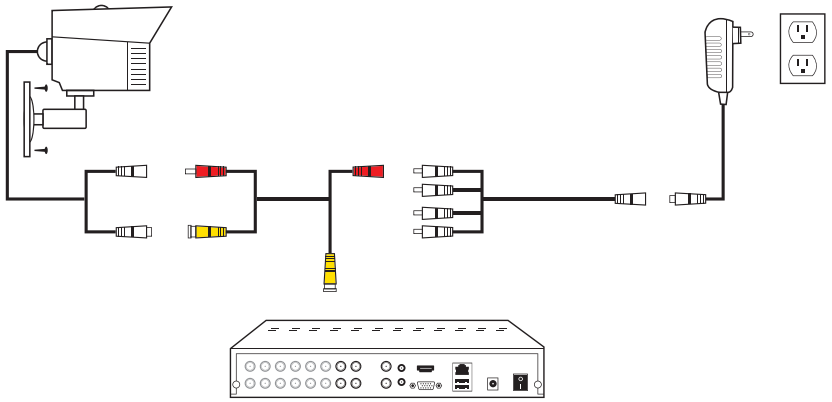
Ensure the camera is secured into place



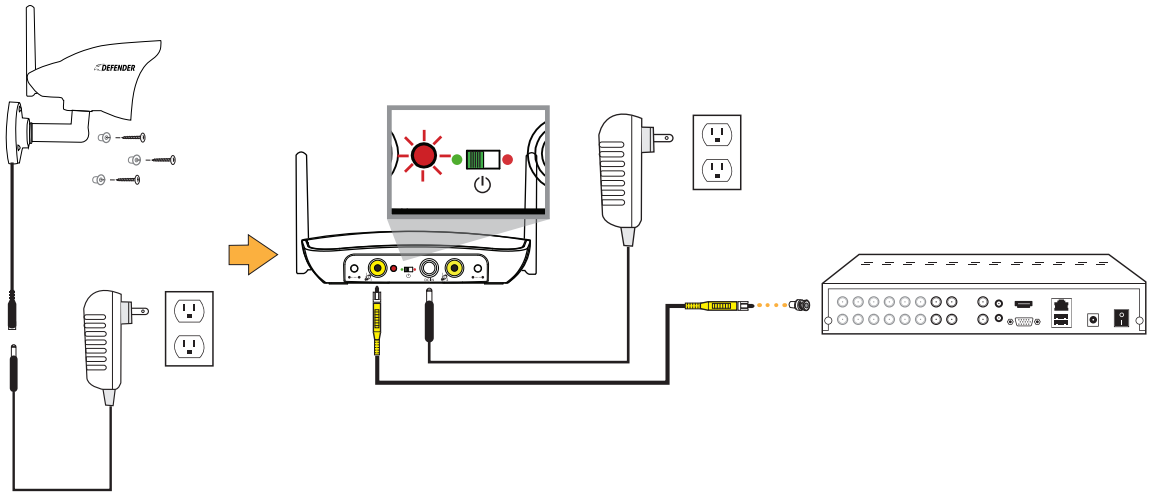
*Not all camera styles can be mounted on the ceiling. Please read the camera installation instructions specific to your camera before installation.

Basic Setup

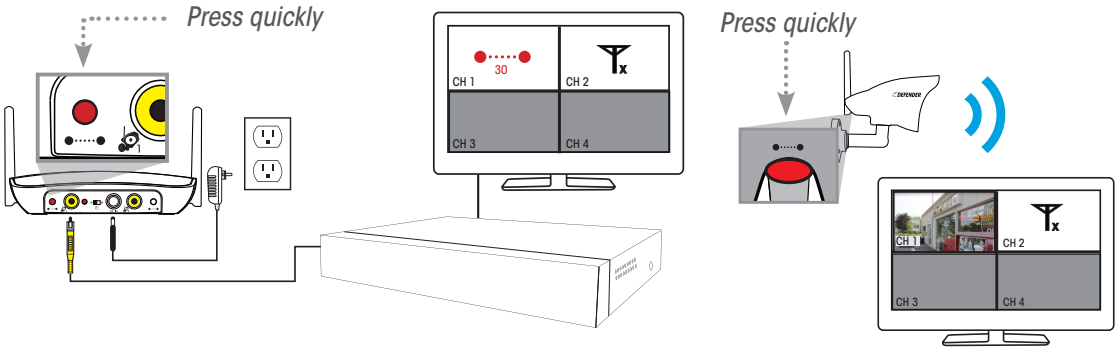
Wired camera installation



Wireless camera installation



Wireless Cameras - Pairing



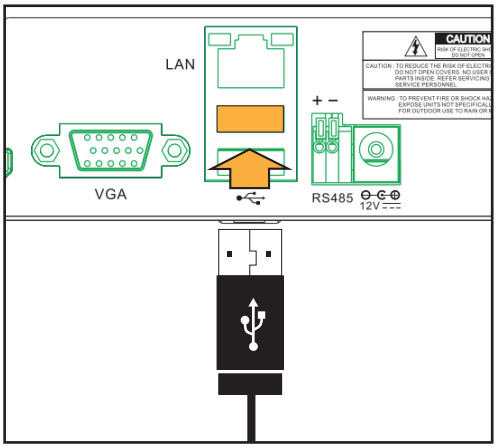
If Tx appears on the screen, disconnect the power supply from the camera and repeat PAIRING steps. Optimum range is150ft when signal is passing through walls or floors.

Basic Setup

Connecting additional devices

Connecting a USB mouse

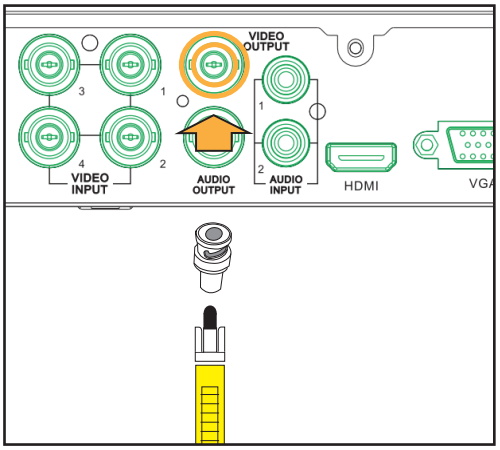
- Plug USB mouse into top USB port on back of DVR.



Connecting a TV/monitor

Using RCA cable to TV

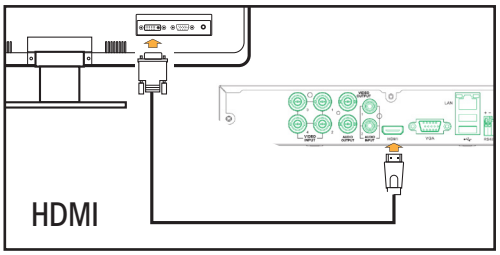
1. Connect the BNC to RCA connector to the top VIDEO OUT connection on the back of the DVR.
2. Plug the RCA cable into the BNC connector.
3. Attach the other end of the RCA cable to a yellow RCA video input on your TV.
4. Switch the TV source to view the DVR. (Consult the TV manual for instructions on how to switch the video source).



Using HDMI or VGA cable

HDMI - Connecting your DVR to your television via HDMI cable is the best way to transmit high-definition video from the device to your television.

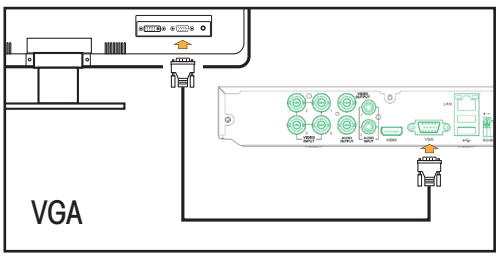
1. Connect one end of HDMI cable to the back of the DVR.
2. Connect the other end to the TV or Monitor.
3. Make sure your TV or Monitor is set to the correct Input/ Source setting so the DVR display is visible.



VGA - You can connect your DVR to a computer monitor via VGA cable (TVs do not usually have this connection available).

1. Connect one end of VGA cable to the back of the DVR.
2. Connect the other end to the computer monitor.

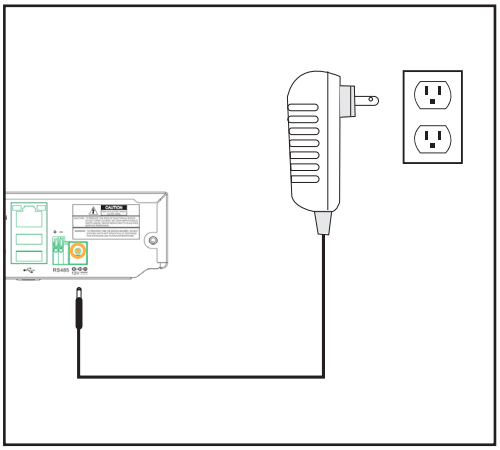
* If connected to a TV via VGA, make sure your TV is set to the correct Input/Source setting so the DVR display is visible.



Basic Setup

Powering on the DVR

Once your mouse, cameras and TV or monitor are connected, you are ready to pwer on the DVR.



1. Plug the power cord into a power outlet (surge protected power outlet recommended).
2. Insert the small end of the power supply wire into the rear DC 12V port on the DVR.
3. After a few seconds the Defender splash screen will appear and the DVR will start up.

16CH DVR has on/off switch on back of unit. After steps 1 and 2 above, please flip the switch UP to the ON position.

Getting Started!

Now that you have powered up the DVR and connected it to a TV or monitor you are ready to begin customizing and using the DVR. You will notice the Coaching SmartMenu information bubbles at the bottom of each Menu Screen describe the settings that you will find in the Menu. As an added convenience, the DVR will automatically begin recording once it is powered on as long as at least one camera is connected.

Using the mouse

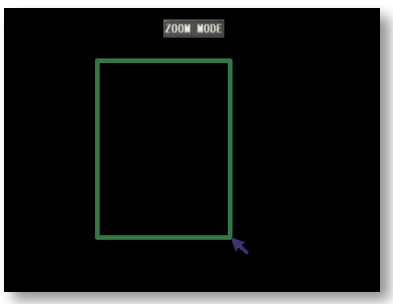
The included USB mouse makes using the DVR simple and efficient. Using the mouse will make controlling the DVR very similar to using a computer. It will allow you to easily click on items to select them and make desired changes.

Screen Viewing

By double-clicking one of the camera screens, the viewing mode will switch to Full Screen mode. Double-clicking again will bring you back to the "All Camera" screen mode. From Full Screen mode, you can zoom into an area of the screen for a closer look. For more information on zooming in, please see ZOOM in FUNCTION TOOLBAR section.

Full Screen

Zooming In



Quad Screen

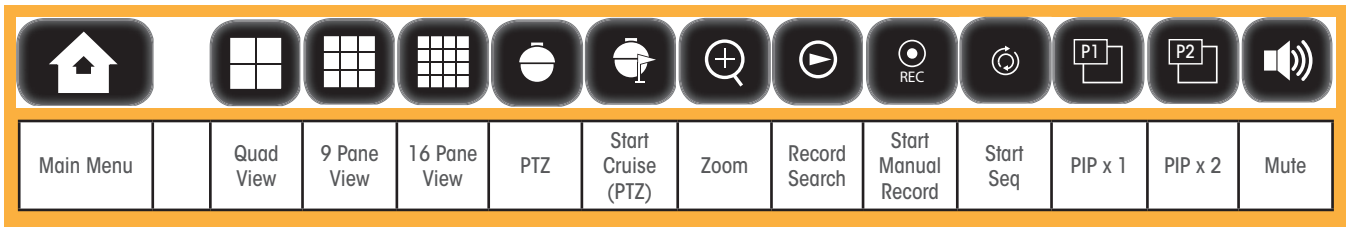
Getting Started!

Function Toolbar

The Function Toolbar can be accessed 3 different ways:

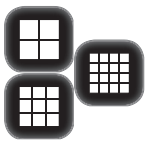
1	Right click the mouse anywhere on the screen. Left click to make a selection. To exit menu, move mouse away from menu and right click.
2	Move mouse to the bottom of the screen and Function Toolbar will appear. Left click to make a selection. To exit menu, move mouse away from menu and right click.
3	Press Select/Enter on the remote control. Use Directional Arrows to move cursor, press Select/Enter to make a selection. Press Menu to exit.

Function Toolbar



Main Menu

Allows you to change settings in Display, Record, Search, Network, Alarm, Device, System and Advanced.



Split Screens

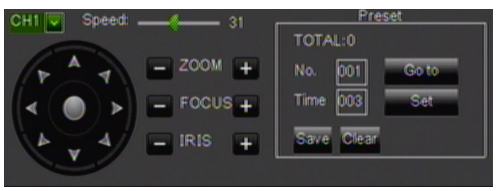
Allows you to change your camera view to your choice of 4, 9 or 16 pane view.

PTZ

PTZ stands for Pan, Tilt, Zoom cameras (not included). This menu option only controls compatible PTZ cameras that are properly set up in the Device section of the menu.

The PTZ camera controls are:

Directional keys:	Moves the camera in the direction of the arrow.
Zoom:	The + zooms in and the – zooms out.
Focus:	The + focuses the picture and the – reduces the focus. This is useful if an object is either close range or long range and is blurry.
Iris:	The + lets in more light and the – removes light from the image. This is useful for varying lighting situations as well as correcting backlight issues.
Speed:	Adjust the speed that the camera moves back and forth.
Cruise Setup:	Preset positions for the PTZ camera to follow. The PTZ camera will cruise through your set positions and times. Not all PTZ cameras have this function.



Getting Started!

Function Toolbar

Setting Cruise:

1. Right click the mouse and select the PTZ icon from the Function Toolbar.
2. Select the channel that the PTZ camera is connected to. (The PTZ camera must already be configured.)
3. Click on the green arrow next to Zoom + ►
4. Click on the Time text field and input the time (in seconds) for how long you would like the PTZ camera to stay at that position.
5. Use the directional buttons to adjust the camera to the areas you would like the PTZ camera to view in cruise mode. Click the Set button at each desired position.
6. To review your set points, select the No. text field and input the number you would like to view.
7. Click Save and then right click to Exit.
8. To erase any Preset cruise points, select the Clear button.
9. To start the PTZ cruise, open the Function Toolbar and select Start Cruise. To stop the PTZ cruise, open the Function Toolbar and select Stop Cruise.

Start / Stop Cruise
Starts and Stops the cruise function (if you have set up the PTZ cruise).

Allows you to get a better view of what you are monitoring when viewing a camera in full-screen mode.

Using Zoom:

1. Double click the screen you would like to zoom in on. This will open to full screen mode.
2. Right click the mouse and select the Zoom icon from the Function Toolbar.
3. Using the mouse, left click and hold to drag a square around the area you would like to zoom in on.
4. Once the square has been set, release the mouse button and the screen will zoom in on the selected area.
5. To exit the zoomed in screen, right click the mouse.

Record Search
Allows you to search through your recorded footage. For more information on the video search menu, please consult the Playback section of this manual.

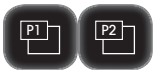
Start / Stop Record
Allows you to Start or Stop recording if the DVR's schedule is set to Motion Record and you would like to record footage in between motion detection events.

Start / Stop Sequence
Right click the mouse and select the Start Sequence icon from the Function Toolbar. The cameras will then start sequencing through as follows: Cam 1-16 (full-screen) ► quad screen ► 9 screens ► 16 screens.

To stop, right click the mouse and select the Stop Sequence icon from the Function Toolbar.

Getting Started!

Function Toolbar



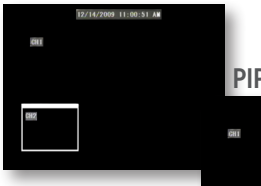
PIP Mode

Picture In Picture (PIP) mode allows you to view camera 1 in full screen and up to two other camera channels (of your choice) as smaller screens in each corner of the screen. You must have at least 2 cameras connected to your DVR for PIP mode to function properly.

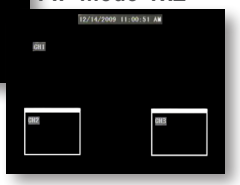
Using PIP mode:

1. Right click the mouse and select the PIP Mode 1x1 or PIP Mode 1x2 from the Function Toolbar.
2. 1x1 allows you to view camera 1 in full screen and another camera in the lower left corner of the screen. 1x2 allows you to view camera 1 in full screen and two other cameras in the bottom left and right corners of the screen.
3. To exit PIP mode, right click the mouse anwhere on the screen.

PIP Mode 1x1



PIP Mode 1x2



Volume

Allows you to mute the sound being recorded if you are using audio-enabled cameras. Right click the mouse and select the Mute icon from the Function Toolbar.

Main Menu

1	Right click the mouse anywhere on the screen, then left click the Main Menu icon.
2	Move mouse to the bottom of the screen and Function Toolbar will appear. Left click the Main Menu icon.
3	Press Select/Enter on the remote control and the Function Toolbar will appear at the bottom of the screen. Use Directional Arrows to move cursor, press Select/Enter to select the Main Menu icon.

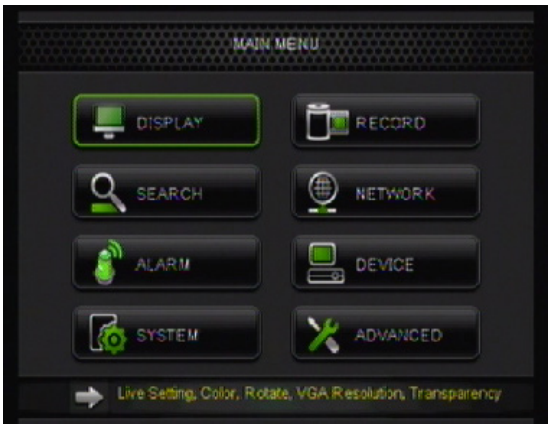
When accessing sub-menus, there are three options available at the bottom of the screen:

Default: Restores all of the settings on the current page to the default settings.

Apply: Applies and saves changes made to the current menu page.

Exit: Exits the current menu.

Note: All sub menus have some or all of the above options.

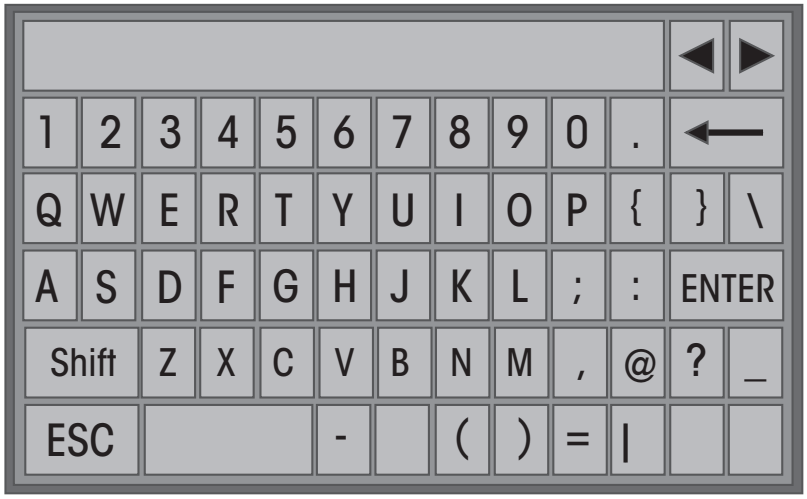


Main Menu

Using the Keyboard

The keyboard is used when typing in passwords, dates and to label/name certain functions. This keyboard will appear multiple times when working with your DVR.

1. To select letters, left-click the mouse or press SELECT on the remote control. Selecting the SHIFT key on the keyboard changes the letters to lower case and displays additional characters. To erase, select the backspace ← key.
2. When you have finished typing, select the ENTER key on the keypad to close the keyboard.



Display

The DISPLAY section has 3 tabs; Live, Output and Privacy Zone. This menu allows you to name each camera, adjust where the title of the camera appears on screen, adjust the color of each camera, turn cameras on and off as well as decide on where the time will be displayed on-screen.

Live Tab

The Live Tab allows you to customize the name and position of the camera name. Customizing camera names allow for easy recognition of locations you are monitoring.

Name

This will be the name of the camera that is displayed on screen. It is a good idea to name the camera something that reflects what the camera is monitoring, i.e. Garage or Driveway. (Maximum of 8 characters).

1. Select the camera channel.
2. Left click in the NAME field, the keyboard will open.
3. Enter the name of the camera, then click the ENTER key.
4. Click APPLY at the bottom of the screen to save your changes.
5. Repeat steps 1-4 for each camera.

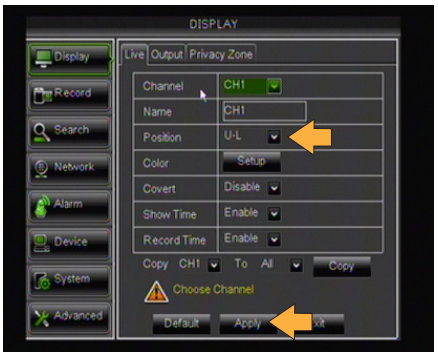
Main Menu

Position

This will determine where the camera name will be displayed when viewing your cameras.

Changing the POSITION of the title:

1. Left click the POSITION drop down list.
2. Select the position where you would like the title to appear when viewing your cameras. If you do NOT want to display the name, set the position to DISABLE.
3. Click APPLY at the bottom of the screen to save your changes
4. Repeat steps 1-3 for all desired cameras.



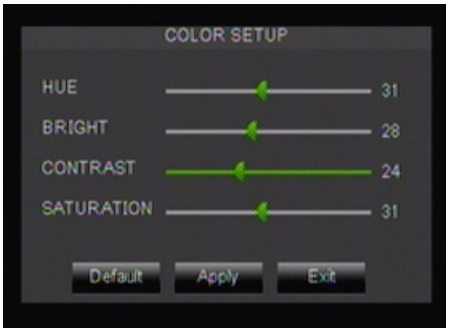
U-L ⟶ Upper-Left
D-L ⟶ Down-Left
U-R ⟶ Upper-Right
D-R ⟶ Down-Right

Color

Clicking the SETUP button will allow you to adjust the image settings for an individual camera..

Adjusting the camera COLOR:

1. Left click the SETUP button. A Color Setup menu will open.
2. A full screen view of the selected camera will appear along with scroll bars to adjust Hue, Brightness, Contrast and Saturation.
3. Click and drag the bar in the center to turn the settings up and down.
4. Click APPLY at the bottom of the Color Setup screen to save your changes, then EXIT to return to Display menu.
5. Click APPLY at the bottom of the Live screen to save your changes.
6. Repeat steps 1-4 for all desired cameras.



Covert

Choose whether or not to display a camera in LIVE VIEWING mode. The camera will record and playback normally, but it will not appear on the LIVE VIEWING screen. This allows you to protect an entire channel from public or user viewing so only authorized viewers can see the activity in that location.

Setting the Covert feature:

1. Left click the COVERT drop down list.
2. Select ENABLE or DISABLE from the drop down list to turn the camera ON or OFF.
3. Repeat for all desired cameras.
4. Select APPLY to save the changes.

Main Menu

Show Time

Allows you to display the time while it is RECORDING and while it is in LIVE VIEW mode. The default setting has both time displays set to ENABLE.

Changing how the TIME is displayed:

1. Left click the SHOW TIME and/or RECORD TIME drop down list.
2. Select ENABLE or DISABLE.
3. Click APPLY at the bottom of the screen to save your changes
4. Repeat steps 1-3 for all desired cameras.

Copy

Allows you to copy all display selections from one camera to another, or to all cameras.

COPY settings from one camera to other cameras:

1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

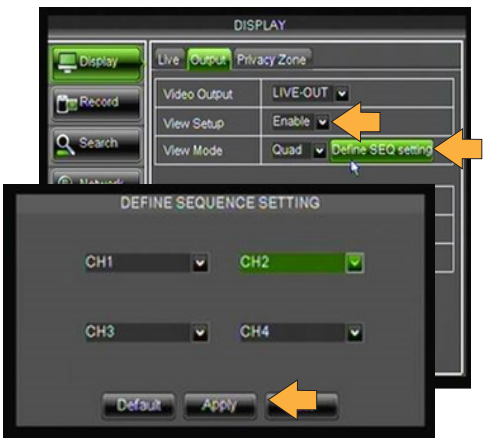
Output Tab

The Output Tab allows you to control how images are displayed on screen. You can also control VGA/HDMI Resolution and Transparency. (Video Output is set to LIVE-OUT by default).

View Setup

Allows you to change the order of the cameras you see in live mode.

1. Select the VIEW SETUP drop down list and choose ENABLE.
2. Select the VIEW MODE drop down list and choose a camera view i.e. single, quad, nine, sixteen.
3. Left click the DEFINE SEQ SETTING button. A Define Sequence Setting menu will open.
4. Your current camera setup will be displayed. Select the CH drop down list to rearrange the camera views.
5. Click APPLY at the bottom of the Define Sequence Setting screen to save your changes, then EXIT to return to Display menu.
6. Click APPLY at the bottom of the Output screen to save your changes.



QUAD MODE-DEFAULT

CH1	CH2
CH3	CH4

QUAD MODE-NEW

CH4	CH3
CH2	CH1

Main Menu

Output Tab

VGA/HDMI Resolution

Adjusting VGA/HDMI Resolution:

1. Select the VGA/HDMI Resolution drop down list.
2. Highlight the desired resolution. NOTE: The higher the resolution, the more space it will use on your HDD.
3. Click APPLY at the bottom of the screen to save your changes.

Note: HDMI and VGA operate simultaneously. When selecting HDMI, both are active.

Initial Device (Init. DEV.)

To set the INIT. DEVICE type:

1. Select the INIT. DEV drop down list.
2. Highlight the device type you are using: VOUT, HDMI, or AUTO.
3. Click APPLY at the bottom of the screen to save your changes.

Transparency

Allows you to increase/decrease the transparency of the menu screen.

Adjusting the TRANSPARENCY:

1. Click and drag the bar in the center next to TRANSPARENCY.
2. Click APPLY at the bottom of the screen to save your changes.

Volume and Margin

These options let you customize the look and sound of your recordings.
**Features may not be available on your specific model.*

Margin

Adjusting MARGINS:

1. Left click the MARGIN button. A Margin Setup menu will open.
2. Slide the cursor from 0 to 36 to set each margin, 0 being the lowest, 36 being the highest.
3. Click APPLY at the bottom of the Margin Setup screen to save your changes, then EXIT to return to Display menu.
4. Click APPLY at the bottom of the Output screen to save your changes.

Volume

Adjusting the VOLUME:

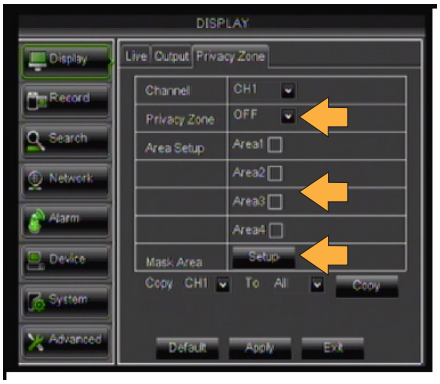
1. Left click the VOLUME button. A Volume Setup menu will open.
2. Slide the cursor from 1 to 63 to set the volume, 1 being the lowest, 63 being the highest.
3. Click APPLY at the bottom of the Margin Setup screen to save your changes, then EXIT to return to Display menu.
4. Click APPLY at the bottom of the Output screen to save your changes.

Main Menu

Privacy Zone Tab
The Privacy Zone Tab allows you to have up to 4 privacy zones per camera. Privacy zones appear as black areas on a live view screen and are never recorded. Block out a portion of the scene from an individual camera such as a cash register or safe while still seeing the activity around the masked area.

Setting PRIVACY ZONES:

1. Select the PRIVACY ZONE drop down list.
2. Select ENABLE or DISABLE.
3. Place checkmarks next to the number of privacy zones you wish to have (up to 4 zones per camera).
4. Left click the MASK AREA > Setup button. The channel selected will appear in full-screen with the number of boxes(areas) selected.
5. Click and drag the boxes around the screen to place them where you need privacy zones. Right click the screen when you are done.
6. Click APPLY at the bottom of the Privacy Zone screen to save your changes.



Copy
Allows you to copy all Privacy Zone selections from one camera to another, or to all cameras.

COPY settings from one camera to other cameras:

1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

Record

This option allows you to turn recording for each camera ON or OFF, set video quality, adjust the frame rate, set the resolution, enable or disable audio recording, pick a recording mode (scheduled or continuous), set the file pack time (recorded video size in minutes) and copy settings from one camera to another.

Rec Para Tab
Recording parameters allows you to choose the channel you wish to record, turn record ON or OFF, set the Pack Duration as well as enable PreRecord if you wish to enable Motion Record.

Record
Enable/disable RECORD on channels:

1. Select the CHANNEL drop down list and choose a camera number.
2. Select the RECORD drop down list and choose ENABLE or DISABLE.
3. Click APPLY at the bottom of the screen to save your changes.

Main Menu

Pack Duration
Choose the maximum length that each recorded video clip will be. This is for backup purposes.

Setting PACK TIME:

1. Select the PACK TIME drop down list and choose the length of each recorded video clip (15, 30, 45 and/or 60 min).
2. Click APPLY at the bottom of the screen to save your changes.

PreRecord
This function works with motion detection. If enabled, the DVR will pre-record a few minutes of footage prior to motion being detected for that camera.

1. Select the PRERECORD drop down list.
2. Select ENABLE or DISABLE.
3. Click APPLY at the bottom of the screen to save your changes.

COPY settings from one camera to other cameras:

1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

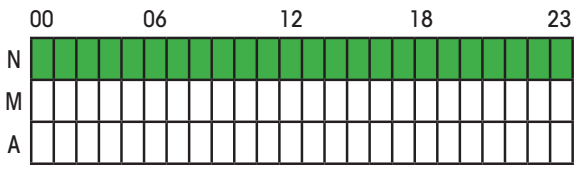
Schedule Tab
The Schedule tab allows you to choose from continuous recording, motion-triggered recording or scheduled recording. Your DVR is set to continuous record by factory default.

- N-Normal: (Green) Sets schedule or continuous recording
- M-Motion: (Yellow) Settings for motion recording
- *A-Alarm: (Red) Audible alarm sounds when motion is triggered
- No Record: (Transparent) Footage will not record at this time

*See ALARM section of manual for additional alarm settings.

Continuous Record
Each camera selected records continuously or at the times you select.

1. Select the CHANNEL drop down list and choose a camera number.
2. Select the WEEK drop down list and choose a day of the week.
3. N-Normal allows you to record 24/7. One click highlights the individual box. Each box represents one hour. To unselect, click the box again. For example, to record 24/7, all boxes from 0 to 23 need to be GREEN.
4. Click APPLY at the bottom of the screen to save your changes.



Main Menu

*Quickly copy your settings to other days of the week and/or channels:

COPY settings from one day to other/all days:

1. Select the COPY drop down list and choose a day, i.e. Sun
2. Select the TO drop down list to select one or ALL days of the week.
3. Click the COPY button. The settings will now be copied to your specified day(s).
4. Click APPLY at the bottom of the screen to save your changes.

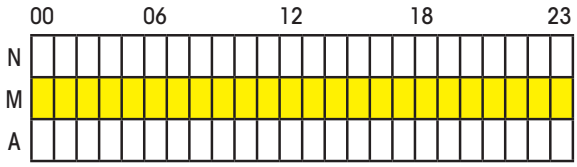
COPY settings from one camera to other cameras:

1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

Motion Record

Each camera selected records mouvement at the times you select.

1. Select the CHANNEL drop down list and choose a camera number.
2. Select the WEEK drop down list and choose a day of the week.
3. M-Motion allows you to record motion events at specified times. One click highlights the individual box. Each box represents one hour. To unselect, click the box again. For example, to record 24/7 when motion occurs, all boxes from 0 to 23 need to be YELLOW.
4. Click APPLY at the bottom of the screen to save your changes.

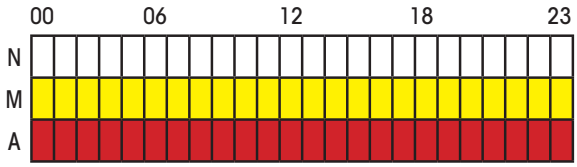


*Quickly copy your settings to other days of the week and/or channels (see instructions above).

Alarm Record

Each camera selected sounds an audible alert at the times you select when motion is triggered.

1. Select the CHANNEL drop down list and choose a camera number.
2. Select the WEEK drop down list and choose a day of the week.
3. A-Alert allows you to set and audible alert when motion events occur. One click highlights the individual box. Each box represents one hour. To unselect, click the box again. For example, to set alerts 24/7 when motion occurs, all boxes from 0 to 23 need to be RED.
4. Click APPLY at the bottom of the screen to save your changes.



*See ALARM section of manual for additional alarm settings.

*Quickly copy your settings to other days of the week and/or channels (see instructions above).

Main Menu

Mainstream Tab

The Mainstream Tab allows you to customize the quality of your recordings. Here you can change the Resolution, the FPS (Frames per Second), the Bitrate, as well as enable audio recording if you have audio-enabled cameras.

Resolution

Measures the sharpness of the image. The higher the resolution, the sharper the image will appear. A higher resolution uses more space when storing on the HDD.

960H: (For Widescreen) 960x480 (default)
Resolution: WD1, WHDI and WCIF (default)

D1 (For Regular) 720x480
Resolution: D1, HD1 and CIF (default)

FPS (Frames per Second)

A higher FPS will result in smoother and better quality recorded video. A lower FPS will result in a choppy video, however it will use less space on the HDD.

Bitrate

The bitrate represents the amount of information or detail that is stored per unit of time of a recording. The DVR is set to the recommended 512 bps.

1. Find the CHANNEL you wish to edit.
2. Select the RESOLUTION drop down list and choose a resolution type.
3. Select the FPS drop down list and choose a resolution per channel.
4. Select the BITRATE drop down list and choose a bitrate.
5. Click APPLY at the bottom of the screen to save your changes.

COPY settings from one camera to other cameras:

1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

Audio *(Your camera must have audio recording capabilities)*

- Check the AUDIO box to activate audio recording.
- Uncheck the AUDIO box to disable audio recording.
- Click APPLY at the bottom of the screen to save your changes.

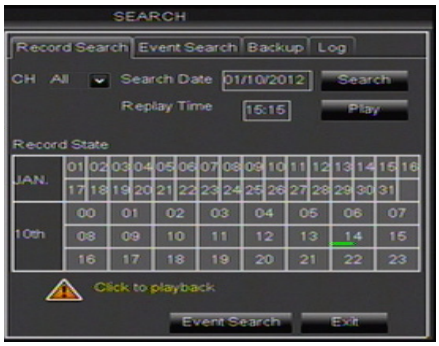
Main Menu

Search

This option allows you to search through your previously recorded footage and find footage recorded from particular dates and times. You can access the VIDEO SEARCH menu by pressing PLAY on the remote control, PLAYBACK on the FUNCTION TOOLBAR or going to the MAIN MENU and select SEARCH.

Record Search Tab

Access and playback footage from a particular date and time:



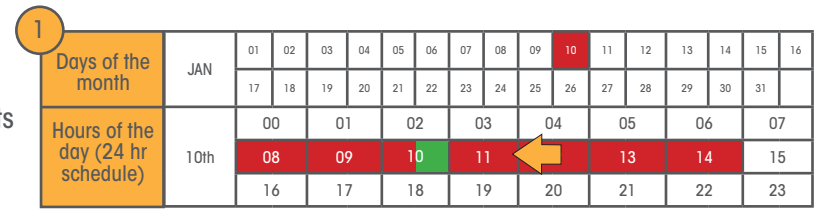
1. Select the CH drop down list and choose a camera number that you would like to search for recorded footage.
2. Left click in the DATE field, the keyboard will open.
3. Enter the search date, then click the ENTER key ↵.
4. Enter the search time (if applicable), then click the ENTER key ↵.
5. Click the SEARCH button.
    - Once you have searched for a particular date, you can view times and footage from each day of that month. The box outlined in RED indicates the search date.
    - The days and times that have Motion/Alarm recorded footage are RED in the time schedule.
    - The days and times that have Schedule Recording are GREEN in the time schedule.
    - If the time is not red or green, it means there was no recording during that time.
    - To view other days or times that have footage, double click on the day in the calendar.

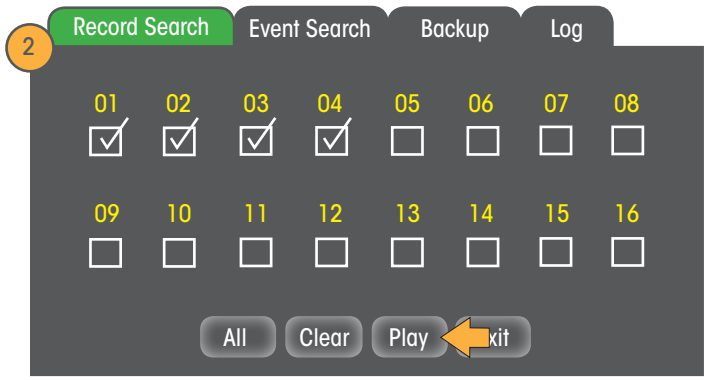
Example:

Search Date: January 10th recordings

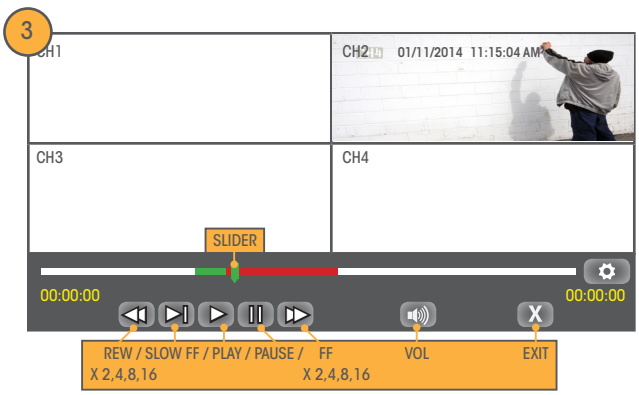
- 8am to 10:30 am = Motion/Alarm events
- 10:30am to 11am = Normal events
- 11am to 2pm = Motion/Alarm events

1. Left click on the desired date to view/play recorded events.
2. A screen will appear with all of the available cameras. Select the cameras that you would like to view footage.
3. Click PLAY and footage will start playing.





All = Select all cameras	Clear = Clears all selected cameras
Play = Plays footage from selected cameras	Exit = Back to Record Search Tab



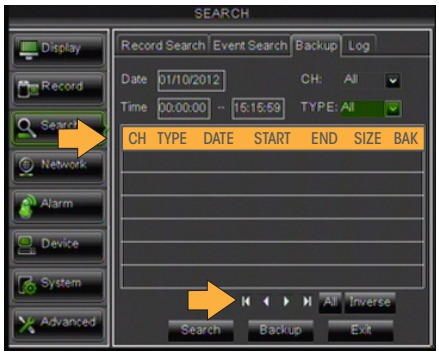
Main Menu

Event Search Tab

This DVR allows you to view the file list for each day that you have recorded footage. The file list allows you to see what type of recording it was (NORMAL, MOTION DETECTION), the date and time the footage was recorded, the size of the footage, as well as gives you the option to backup particular recorded events.

Accessing the file from the video search menu:

1. Select the CH drop down list and choose a camera number that you would like to search for recorded footage.
2. Left click in the DATE field, the keyboard will open.
3. Enter the search date, then click the ENTER key ↵.
4. Click the SEARCH button to open up the available files for that date. The days and times that have recorded footage stored on them are shown in this list.
5. If you would like to filter out the types of recordings on this list, select what type of recording you would like to see from the drop down menu next to the word TYPE. You can view MOTION recordings, SCHEDULE recordings or ALL recordings.
6. The list displays the following information (from left to right):
   - CH: The channel with recorded footage.
   - Time: The time range that the footage was recorded .
   - Size: The size of the file – the larger the file the longer the video clip.
   - Type: The type of footage that was recorded (ALARM or NORMAL).
   - BAK: Allows you to select video clips to backup onto a USB device.

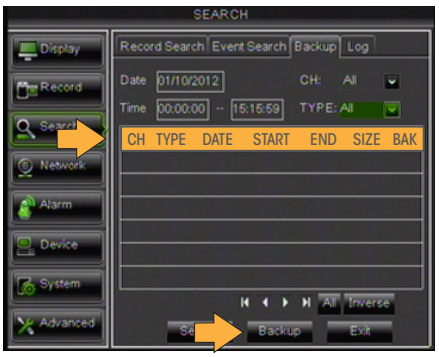


7. The buttons along the bottom of the list, when highlighted and selected do the following:
   - First: Brings you the beginning of the list (oldest footage first).
   - Prev: Brings you back a page if not already on the first page.
   - Next: Brings you forward a page.
   - Last: Brings you to the last page of recorded footage (most recent footage is last).
   - All: Selects all footage on the page to be backed up .
   - Inverse: Deselects the selected footage and selects non-selected footage for backup.
   - Backup: Prompts backup of the selected video clips.
   - Exit: Exits the file list.

Main Menu

Backup Tab
Your DVR allows you to backup footage to a USB device, USB HDD, or a USB CD/DVD burner and play it back on your computer.

Backup footage to USB device:



1. Make sure a USB device or USB burner connected to the proper USB port on the back of the DVR.
2. Access the list of recordings from the day you need to back up.
3. Select the box under the word BAK next to the video clip(s) you would like backed up.
4. Select the BACKUP button.
5. This will prompt the DVR to begin backing up footage. A message will appear "BACKING UP, DON'T REMOVE USB!".
6. Once the selected footage has saved to the USB device or USB burner, a message will appear "BACKUP FINISHED!". Select EXIT to exit the menu.
7. To view the backed up footage on your USB device, please go to the COMPUTER PLAYBACK section of the manual. To view the backed up footage on a CD/DVD, follow the basic instructions for your CD/DVD player.

Note: The Backup format is H.264 and will require the included software to play the video file. Video clips can also be played back using the web viewer.

Log Tab
To view the log of files in the order that they were recorded. Here you can choose to view files based on recording type and time frame.

1. Select the recording type and time frame and press the SEARCH button, the list of files will come up on the screen.
2. Insert a USB device into any open USB port.
3. Select BACKUP, the entire list will be exported to your USB device. A message will appear "BACKING UP, DON'T REMOVE USB!"

Network

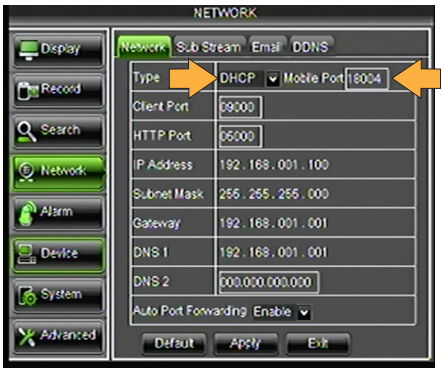
The NETWORK SETUP menu is your gateway to viewing your footage online. This menu holds the information you need to set up online viewing. The DVR is preconfigured to work with most basic network setups and the values shown on the screen are the values you will be using to set up and view the DVR on a computer.

Main Menu

Network Tab

The NETWORK SETUP menu allows you to configure all the settings necessary to view your DVR online. You can configure the way the DVR acquires an IP address, adjust which ports are used to communicate with the DVR, adjust your DNS as well as set your information for a DDNS account.

Type



Determines how the DVR will acquire an IP address; DHCP, PPPoE or Static.

- DHCP - (Dynamic Host Configuration Protocol) address is the most common setup for home or office networks. This allows the DVR to automatically receive an IP address from the router. By default the IP mode is DHCP.
- PPPoE - Used for DSL services where individuals connect to a DSL modem. It is recommended to store the PPPoE information in the router, if the PPPoE information is not stored in the router, the DSL modem will need to be configured. If you are using a PPPoE connection, contact your Internet Service Provider for your PPPoE name and password.
- Static IP - Static IP addresses are manually assigned by an administrator. A static IP address is beneficial if your internal IP address changes often. Most home or office networks today do not use static IP addresses. If you are unsure of whether you need a static or dynamic IP address, please contact your network administrator.

Changing the IP Type:

1. Select the TYPE drop down list and choose an IP Type.
2. Click APPLY at the bottom of the screen to save your changes.

Mobile Port

Allows you to adjust which port your Smartphone will be viewing from. Port forwarding on the router must be configured for this port for mobile viewing on a Smartphone. The MOBILE port default setting is 18004.

Client Port

This port is used to transmit images from the DVR. It is recommended that this port remain on port 9000.

HTTP Port

This port is used to initiate communication to the DVR. The HTTP port is entered at the end of the IP address to connect to the DVR. If using default port 5000, you will need to add that port to the end of the IP address when typing it into the web browser. (Ex. If the IP address is 192.168.1.103 you would type http://192.168.1.103:5000 in the address bar of Internet Explorer).

Changing the HTTP Port:

1. Left click in the HTTP Port field, the keyboard will open.
2. Enter the new number, then click the ENTER key ↵.
3. Click APPLY at the bottom of the screen to save your changes.

Main Menu

IP Address
The numbers here represent the Internal IP address of your DVR. If your DVR is not properly connected to the router, the IP address will appear as 0.0.0.0 or 192.168.1.100.

Acquiring an IP Address:

1. Make sure the DVR's IP mode is set to DHCP.
2. Click APPLY at the bottom of the screen to save your changes.
3. Right click anywhere on the screen until you exit the menu completely.
4. Unplug the power cable from the DVR.
5. Connect the included network cable from the back of the DVR to your router.
6. Plug the power cable back into the DVR.
7. Go to the MAIN MENU and enter the NETWORK tab to verify that the IP Address is displayed on the NETWORK tab.

If your IP address changes frequently, changing your network type to STATIC may help to prevent it from changing.

Setting the IP address to STATIC:

1. Write down your current IP address, found on the NETWORK tab in the IP ADDRESS field.
2. Select the TYPE drop down list and choose STATIC.
3. Left click in the IP ADDRESS field, the keyboard will open.
4. Enter your IP address from step 1 then click the ENTER key ↵.
5. Click APPLY at the bottom of the screen to save your changes.
6. Right click anywhere on the screen until you exit the menu completely.
7. Unplug the power cable from the DVR for a few seconds.
8. Plug the power cable back into the DVR.
9. Go to the MAIN MENU and enter the NETWORK tab to verify that your changes are saved.

Note: Please ensure you write down the Client/HTTP/Mobile ports, IP Address and Gateway numbers (as they appear in the NETWORK tab). This information is required to set up Port Forwarding, which allows you to remotely view the DVR outside of the current network.

Gateway
This is the IP address of your router. If the box is populated with numbers other than all zeros, this confirms that you are successfully connected to your router.

Main Menu

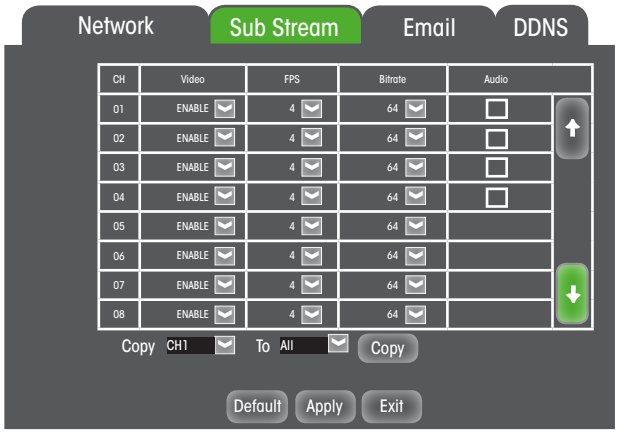
DNS1 & DNS2
Stands for Domain Name System and is for advanced network setup. DNS is used to convert common names into website IP Addresses. It is best to leave these settings as they are usually the same as in the router.

Changing the DNS Address:
1. Left click in the DNS field, the keyboard will open.
2. Enter the number you would like for a DNS address, then click the ENTER key ↵.
3. Click APPLY at the bottom of the screen to save your changes.

Auto Port Forwarding
This setting does not require any changes. The default setting is ENABLED.

Substream Tab
These are the resolution settings for viewing your mobile device.

Video
Enable or disable if the video from that channel can be viewed from a mobile device. The default setting is ENABLED.



FPS *(Frames per Second)*
The FPS settings are adjustable. A higher FPS will result in smoother and better quality recorded video. A lower FPS will result in a choppy video, however it will use less space on the HDD.

Bitrate
The bitrate represents the amount of information or detail that is stored per unit of time of a recording. The DVR is set to the recommended 64bps.

Audio
Your camera must have audio recording capabilities for this option.

Audio on/off:
1. Check the AUDIO BOX next to the channel to turn audio ON.
2. Uncheck the AUDIO BOX next to the channel to turn audio OFF.
3. Click APPLY at the bottom of the screen to save your changes.

COPY settings from one camera to other cameras:
1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

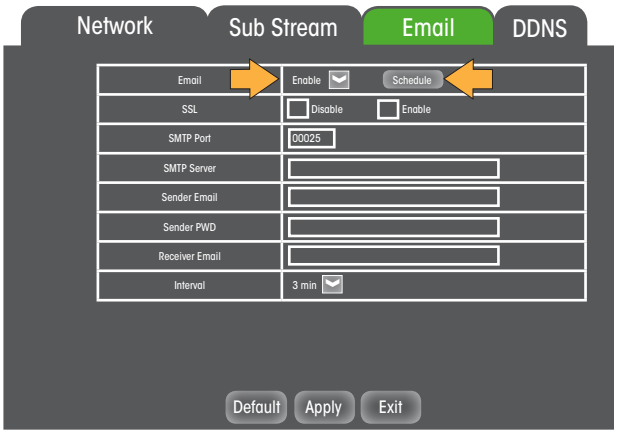
Main Menu

Email Tab

The EMAIL tab allows you to set up your email so that you can receive notifications when alerts occur. The email schedule allows you to customize when email alerts will be sent.

Setting up your EMAIL notifications on the DVR:

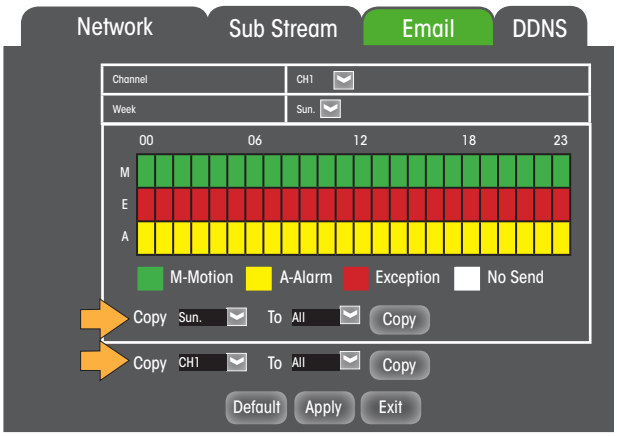
1. Select the EMAIL drop down list and choose ENABLE.
2. Left click the SCHEDULE button, an email notification schedule will appear.
3. Customize when email alerts will be sent.



COPY settings from one day/camera to other day / cameras:

1. Select the COPY drop down list and choose a day / camera number.
2. Select the TO drop down list to select a day / camera number or ALL days / cameras.
3. Click the COPY button. The settings will now be copied to your specified day(s) / camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

Email Schedule



Receiving EMAIL notifications:

1. Select the EMAIL drop down list and choose ENABLE.
2. Click the ENABLE box next to SSL.
3. Select the SMTP Server box and input the SMTP server address provided by your email provider. (Gmail SMTP address: smtp.gmail.com).
4. Select the SENDER EMAIL box and input the email in which the email notification will be coming from.
5. Select the SENDER PWD box and input the password for the sending email account.
6. Select the RECEIVER EMAIL box and input the email in which the email notification will be going to.
   - The SENDER EMAIL and the RECEIVER EMAIL can be the same email.
7. Select the INTERVAL drop down box and select the email frequency (1min, 3min, 5min, 10min).
8. Click APPLY at the bottom of the screen to save your changes.

- M-Motion (Green) Settings for motion recording
- A-Alarm: (Yellow) External alarm alerts
- Exception: (Red) Video loss, HD failure
- No Send (Transparent) No email

Provider	Email	SSL	SMTP Port	Alt Port	Sender Email	SMTP Server
AOL	Enable	Enable	587	465	your email@aol.com	smtp.aol.com
HOTMAIL	Enable	Enable	587	25	your email@live.com	smtp.live.com
GMAIL	Enable	Enable	465	587	your email@gmail.com	smtp.gmail.com
MSN	Enable	Enable	587	25	your email@live.com	smtp.live.com
SBC	Enable	Disable	587	25	your email@sbcglobal.net	smtp.sbcglobal.yahoo.com
YAHOO	Enable	Disable	25		your email@yahoo.com	smtp.mail.yahoo.com
YAHOO2	Enable	Enable	465	25/587	your email@yahoo.com	smtp.mail.yahoo.com

Main Menu

DDNS Tab

The DDNS (Dynamic Domain Name Service) menu option allows you to set up a common name for the DVR instead of typing in an IP address. This feature is used if you have a Dynamic IP address from your ISP (Internet Service Provider) and the IP address is constantly changing.

Setting up your DDNS on the DVR:

1. Select the DDNS drop down list and choose ENABLE.
2. Select the SERVER drop down list and choose your DDNS provider from the list.
3. Left click in the HOST NAME field, the keyboard will open.
4. Enter your Host Name then click the ENTER key ↵.
5. Left click in the USER NAME field, the keyboard will open.
6. Enter your User Name then click the ENTER key ↵.
7. Left click in the PASSWORD field, the keyboard will open.
8. Enter your Password then click the ENTER key ↵.
9. Once all of the information is correctly entered, click APPLY at the bottom of the screen to save your changes.

Alarm

The alarm menu allows you to adjust which alarms you would like set and adjust the length of time that the internal buzzer will sound. This DVR gives you the option to have email alerts sent when motion is detected. To set up email notifications for motion, please see NETWORKING SETUP- EMAIL TAB.

Motion Tab

- CH: The channel you want motion detection.
- Enable: Enable or disable motion detection.
- Area: Set up the area to be detected by motion.
- Sensitivity: Use a range from (1-8) to detect object. 1 being the least sensitive and 8 being the most sensitive.
- Alarm Out: This DVR does not support this function.
- Latch Time: This DVR does not support this function.
- Show Message: DVR will display an "M" on-screen when motion is detected.
- Buzzer: Set the length of the buzzer sounding when motion is detected (Off, 10s, 20s, 40s, 60s).
- Send Email: Send an email when motion is detected.
- Full Screen: When motion is detected on a specific channel, that channel will switch to full screen mode.
- Record Channel: The channel will begin recording when motion is detected.
- Post Recording: Set the record length after motion stops (30s, 1 minute, 2 minutes, 5 minutes).
- Copy: Copy your current channel settings to other channels on the DVR.

Changing the status of motion detection for each camera:

1. Select the CH drop down list and select a channel.
2. Select the ENABLE drop down list and choose ENABLE.
3. Click the SETUP button next to Area. A screen will open allowing you to select the motion detection area. (See Area Setup in next section).
4. Click the boxes next to Show Message and Send Email if you would like these notifications enabled.

5. Select the BUZZER drop down list to set the length of the buzzer sound.
6. Click the channels at the bottom to record the channel when motion is triggered.
7. Click the POST RECORDING drop down list to set up the length of recording after motion has stopped.
8. Click APPLY at the bottom of the screen to save your changes.

COPY settings from one camera to other cameras:

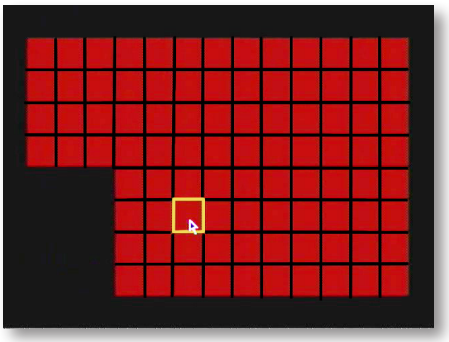
1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

Area Setup

Area Setup allows you to set up the Motion Detection area. This setting allows you to adjust particular areas of each camera where motion will and will not be detected. This is useful if you have a camera pointed towards something that is always moving, such as a busy road or a tree. This way the DVR only records motion that is out of the ordinary, thus saving you HDD space and providing you with more days of recording.

Adjusting the AREA setup:

1. Click the SETUP button next to Area. A screen will open allowing you to select the motion detection area.
2. The screen is fully red indicating the DVR is automatically set to detect motion throughout the whole screen.
3. To adjust the motion detection area, left click the mouse on the squares that you do NOT want motion detected. The squares that will NOT have motion detected will be black.
4. Right click to exit the SETUP screen and click APPLY at the bottom of the screen to save your changes.



Alarm Tab

The Alarm Tab is for external alarms only, not motion detection. An external sensor and alarm are required (not included).

- Alarm In: The channel you want to setup.
- Alarm Type: Select alarm type, NO - Normal open, NC - Normal close or Disable - Off.
  Normal Open: I/O status Alarm will be activated while sensor is ON
  Normal Close: I/O status alarm will be activated while sensor is OFF
  Disable: I/O status alarm will not be triggered
- Alarm Out: This DVR does not support this function.
- Latch Time: This DVR does not support this function.
- Show Message: DVR will display a message on-screen when external alarm is triggered.
- Buzzer: Set length of the buzzer sounding when external alarm is triggered (Off,10s, 20s, 40s, 60s).
- Send Email: Send an email when external alarm is triggered.
- Full Screen: If external alarm is triggered on a channel, that channel will switch to full screen mode.
- Record Channel: The channel will begin recording when external alarm is triggered.
- Post Recording: Set the record length after external alarm stops (30s, 1 minute, 2 minutes, 5 minutes).
- Copy: Copy your current channel settings to other channels on the DVR.

Main Menu

Device

This menu allows you to select and configure the HDD and PTZ camera (not included).

HDD Tab

This menu option gives you information about your HDD (Hard Disk Drive), allows you to enable overwrite mode, and format the hard drive and/or USB drive.

- State: Displays the current operating status of the hard drive. If the hard drive is functioning normally it will display OK.
- Free/Total: Tells you how much HDD space that you have in total and is still available to record.
- Free Time: Amount of remaining time available to record.
- Select : Select which HDD to modify.

Overwrite

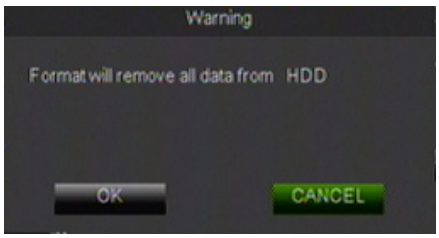
The overwrite mode is automatically set to AUTO, therefore the DVR will record over the oldest footage once the HDD is full instead of stopping the recording once it is full (Disable). Overwriting allows the DVR to never stop recording. You can also set the DVR to start overwriting after 1hr, 3hrs, 1 day, 7 days, 30 days or 90 days.

1. Select the OVERWRITE drop down list and choose an option.
2. Click APPLY at the bottom of the screen to save your changes.

Format HDD

Formatting the HDD erases all recorded video and audio on your HDD.

1. Select the box next to the HDD that you want to format.
2. Click the FORMAT HDD button.
3. An alert screen will appear indicating "FORMAT WILL REMOVE ALL DATA FROM HDD". Select OK to format the HDD or CANCEL to prevent formatting.
4. Formatting the HDD may take a few minutes. Formatting cannot be stopped once it has started.
5. Once formatting is complete, a screen will appear letting you know that the HDD is formatted successfully.
6. Click OK, exit the menu completely and the DVR will restart automatically.



Main Menu

Format USB

Formatting the USB erases anything you have stored on your USB device. Before formatting, be sure to connect your USB device to a USB port.

1. Click the FORMAT USB button.
2. An alert screen will appear indicating "FORMAT WILL REMOVE ALL DATA FROM USB". Select OK to format the USB or CANCEL to prevent formatting.
3. Formatting the USB may take a few minutes. Do NOT remove the USB while formatting. Formatting cannot be stopped once it has started.
4. Once formatting is complete, a screen will open to let you know that the USB has formatted successfully.
5. Select OK and you will have successfully formatted the attached USB drive.

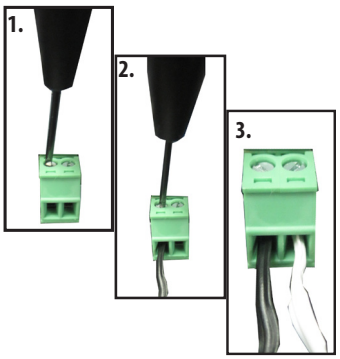
PTZ Tab

PTZ setup allows you to input information for a PTZ camera (PTZ cameras not included). The information must be entered manually into the DVR so that the DVR recognizes your PTZ camera and all its functions.

Connecting a PTZ Camera

The DVR supports a 2-wire RS-485 connection for a PTZ camera to be connected (PTZ camera not included). Please consult your PTZ camera manual for further instructions on required connections and settings.

Connecting a two-wire PTZ camera:



1. With a small flat head screwdriver, unscrew the screw on the top of the opening.
2. Insert the wire into the hole below the top screw while it is still unscrewed.
3. Re-tighten the top screw, to lock the wire into place. Pull lightly on the wire to make sure it is secure.
4. For further instruction on connecting your PTZ camera, please consult the PTZ camera's instruction manual.

Entering PTZ information:

1. Find which camera channel the PTZ camera(s) are connected to on the PTZ setup menu. On that corresponding channel's row, enter the proper PTZ camera information.
2. The required information will be specified in the PTZ manufacturer's manual.
3. Choose to enable/disable CRUISE MODE for the PTZ camera.
4. Click APPLY at the bottom of the screen to save your changes.

COPY settings from one camera to other cameras:

1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click APPLY at the bottom of the screen to save your changes.

Main Menu

System

This menu option allows you to change system settings on your DVR. The settings you can change include:

- Date and Time: Adjust date, time and daylight saving time
- Password: Turn the password function on/off as well as change the password
- Language: Customize and set different languages
- Info: Gives you information about the device, software version, and the MAC address
- Users: Add different users, set different administrators

General Tab

Alllows you to change the date and time, language, as well as daylight saving time.

*You must select the Date Format (i.e. MM/DD/YY) and Time format (i.e.12 or 24hr) before setting the current date and time.

Setting the DATE FORMAT:
1. Select the DATE FORMAT drop down list and choose a date format.
2. Click APPLY at the bottom of the screen to save your changes.

Setting the TIME FORMAT:
1. Select the TIME FORMAT drop down list and choose a time format.
2. Click APPLY at the bottom of the screen to save your changes.

Setting the DATE:
1. Left click in the DATE field, the keyboard will open.
2. Enter the date then click the ENTER key ↵.
3. Click APPLY at the bottom of the screen to save your changes.

Setting the TIME:
1. Left click in the TIME field, the keyboard will open.
2. Enter the time then click the ENTER key ↵.
3. Click APPLY at the bottom of the screen to save your changes.

DST *(Daylight Saving Time)*

You can program the DVR to automatically switch to Daylight Saving Time.

Customizing the DAYLIGHT SAVING TIME settings:
1. Click the DST SETUP box next to DST.
2. Select the DST drop down list and choose ENABLE.
3. Select the TIME OFFSET drop down list and choose if you would like your clock to move forward or backward by 1 or 2 hours.
4. Select the DAYLIGHT SAVING TIME drop down list and choose if you would like DST to change in a specific week or a specific date.

Main Menu

By Week

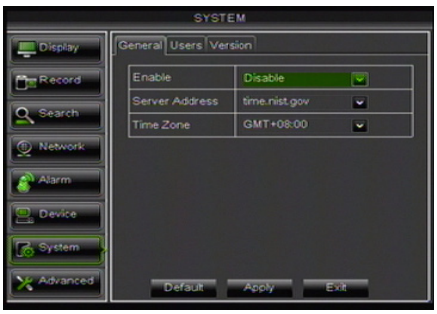
1. Select the DAYLIGHT SAVING TIME drop down list and choose WEEK.
2. Select the START TIME drop down list and choose the month.
3. Select the drop down box below and select the week.
4. Select the drop down box below and select the weekday.
5. Left click in the box below and the keyboard will open.
6. Enter the time for DST to take effect then click the ENTER key ↵.
7. Repeat steps above for End Time.
8. Click APPLY at the bottom of the screen to save your changes.

By Date

1. Select the DAYLIGHT SAVING TIME drop down list and choose DATE.
2. Left click in the box next to Start Time and a keyboard will appear.
3. Enter the specific date then click the ENTER key ↵
4. Left click in the box below and input the time for DST to take effect then click the ENTER key ↵.
5. Repeat steps above for End Time.
6. Click APPLY at the bottom of the screen to save your changes.

NTP *(Network Time Protocol)*

You have the option of setting your DVR to sync its time to various web servers. This ensures your DVR is set to the correct time. It will also automatically adjust to Daylight Saving Time.



Setting the DVR to sync with an NTP time server:

1. Click the NTP SETUP box next to NTP.
2. Select the ENABLE drop down list (in the GENERAL tab) and choose ENABLE.
3. Select the SERVER ADDRESS drop down list and choose one of three time servers.
4. Select the TIME ZONE drop down list and choose your time zone.
5. Click APPLY at the bottom of the screen to save your changes.
6. Click EXIT at the bottom of the screen to return to the main GENERAL tab.

Note: You must be connected to the internet to synchronize your NTP settings to web servers.

Language

You can set the DVR to display many different languages such as English, French, Russian, Italian, Portuguese, Spanish, and Romanian.

Changing the DVR LANGUAGE:

1. Select the LANGUAGE drop down list and choose your desired language.
2. Click APPLY at the bottom of the screen to save your changes.
3. The system will restart and open with your chosen language settings.

Main Menu

Video Format

Throughout the world there are two main video systems; NTSC and PAL. NTSC stands for National Television System Committee, and is used in parts of North America and Japan. PAL stands for Phase Altering Line and it is used in European countries. The DVR is automatically set to NTSC as DEFENDER® distributes DVRs primarily within North America.

Changing the VIDEO FORMAT:

1. Select the VIDEO FORMAT drop down list and choose NTSC or PAL.
2. Click APPLY at the bottom of the screen to save your changes.
3. The system will restart with you new settings.

Menu Time Out

Allows you to set how long your menu screen is visible during moments of inactivity.

Setting the MENU TIME OUT:

1. Select the MENU TIME OUT drop down list and choose 30 sec, 1 min, 2 min, 5min, 10min or OFF.
2. Click APPLY at the bottom of the screen to save your changes.

Users Tab

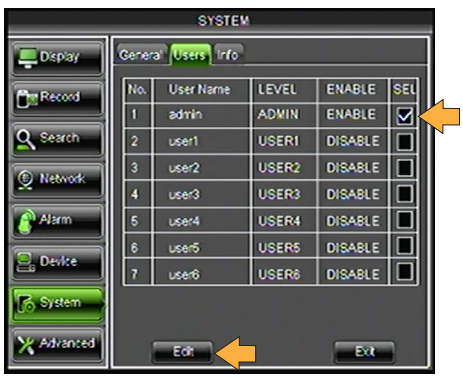
The Users Tab allows for the setup of 7 different users on the DVR. You can also customize their username, password, and permission levels. Permission levels include the ability to change settings, view cameras, and footage.

Password and Permission Setup

The default username is admin and the default password is 123456.

Setting the ADMIN PASSWORD:

1. Click the SEL box to the right of the No. 1 line. It should be set to ADMIN by default.
2. Click the EDIT button and a box will appear.
3. Left click in the box next to USERNAME and a keyboard will appear.
4. Enter the specific username then click the ENTER key ↵
5. To enable password protection, click the PASSWORD ENABLE drop down list and choose ENABLE.
6. Left click in the box next to PASSWORD, a keyboard will appear.
7. Enter the password then click the ENTER key ↵.
8. Left click in the box next to CONFIRM, a keyboard will appear.
9. Enter the same password then click the ENTER key ↵
10. Click APPLY at the bottom of the screen to save your changes.



Main Menu

Enabling User Profiles:

1. Click the SEL box next to one of the Users (No. 2-7).
2. Click the EDIT button and a box will appear.
3. Left click in the box next to USERNAME and a keyboard will appear.
4. Create/change the username then click the ENTER key ↵
5. To enable password protection, click the PASSWORD ENABLE drop down list and choose ENABLE.
6. Left click in the box next to PASSWORD, a keyboard will appear.
7. Create/change the password then click the ENTER key ↵.
8. Left click in the box next to CONFIRM, a keyboard will appear.
9. Enter the same password then click the ENTER key ↵.
10. Click APPLY at the bottom of the screen to save your changes.

Enabling User Permission Levels:

1. Click the SEL box next to one of the Users (No. 2-7).
2. Click the PERMISSION button and a box will appear.
3. Click in all the boxes for the permissions that you want to allow that user to have access to.
4. Select the boxes next to BACKUP, LIVE, PLAYBACK, and PTZ Control as well as the camera channels you want to allow that user to have access to.
5. You can also click the ALL button for the user to have all permissions, or CLEAR to delete all of the permissions.
6. Click APPLY at the bottom of the screen to save your changes.

Info Tab

The INFO Tab allows you to view information about your DVR such as:

- Device Name
- Device ID
- Device Type
- Hardware Version
- Software Version
- IE Client Version
- MAC Address

System

This menu option allows you to preset your DVR system settings such as setting a DVR Reboot Schedule or loading Factory defaults.

Maintain Tab

The MAINTAIN tab allows you to load system default settings, set up your DVR for automatic maintenance, adjust system reboot, manually reboot the system, as well as update the system with a USB device.

Using AUTO REBOOT:

AUTO REBOOT turns the DVR on/off automatically. You must set a schedule for AUTO REBOOT if selecting ENABLE.

1. Select the AUTO REBOOT drop down list and choose ENABLE.
2. Click APPLY at the bottom of the screen to save your changes.

Main Menu

Setting AUTO REBOOT schedule:

1. Select the REBOOT drop down list and choose Every Week, Every Day or Every Month.
2. Select the DAY drop down list and choose a day of the week.
3. Left click in the box next to the day of the week to enter a TIME and a keyboard will appear.
4. Enter the TIME you would like the reboot to occur then click the ENTER key ↵.
5. Click APPLY at the bottom of the screen to save your changes.

Update

A system update can be done if there is new software available for your DVR model.

Note: A software update should only be done if a DEFENDER® representative recommends it.

System UPDATE:

1. Download the upgrade files from www.defender-usa.com and put the files onto your USB flash drive.
2. Ensure the DVR is powered down.
3. Insert the USB flash drive into the back of the DVR and power up the DVR.
4. Go to the Main Menu and click on ADVANCED.
5. Click UPDATE and click OK to confirm. This may take up to 10 minutes.
6. Once the update is complete, your DVR will restart with the new software update.

Default Settings

Loading default settings will restore all settings on your DVR to the default settings except for the date and time. The DEFAULT USERNAME is admin and the DEFAULT PASSWORD is 123456.

1. Click the LOAD DEFAULT button and a box will appear.
2. Click the box for each function that will be restored to default parameters or click ALL to select them all. Click CLEAR to uncheck the boxes.
3. Click APPLY at the bottom of the screen to update your changes.
4. A screen will appear asking "ALL SETTINGS WILL BE LOST. RETURN TO DEFAULT SETTINGS?".
5. If you want to continue and restore the default settings, select OK, if not, select CANCEL.
6. If you select OK, the DVR will take a few minutes to load the default settings.
7. Once loaded, the DVR will reboot automatically and the factory default settings will be set.

Shut Down

1. Click the SHUT DOWN button.
2. A screen will appear asking for confirmation to SHUTDOWN. Select OK to continue or CANCEL to quit.
3. A message "YOU MAY NOW POWER OFF" will appear. You can now safely UNPLUG the power supply to the DVR.

Main Menu

Events Tab

The EVENTS tab allows you to choose which alarms you would like set, adjust the length of time the internal buzzer will sound, as well as set email notifications. You can also have email alerts sent when motion is detected.

Turn on EVENT ALARMS:

1. Select the EVENT TYPE drop down list and choose Disk Full, Disk Error or Video Loss.
2. Next, click the ENABLE box to activate the function.

Alarm Out: This function is not applicable to this DVR.

Latch Time: This function is not applicable to this DVR.

Show Message: When selected, a message will be displayed on your monitor if an event occurs.

Buzzer: Emits an audible alert from the DVR when an event has occured. To set the buzzer length, select the drop down box next to BUZZER and select (10s,20s,40s,60s).

Send Email: When selected, an email will be sent to notify you that an event has occured. Please go to EMAIL TAB for instructions on how to set up email notifications.

Playback

There are two types of files available for playback; RECORD SEARCH files or EVENT SEARCH files. These searches allow you to find footage recorded from particular dates and times.

There are three ways to access the SEARCH menu for playback:

1. Press PLAY on the DVR remote.
2. Right click the mouse on the screen and select the RECORD SEARCH icon from the FUNCTION TOOLBAR.
3. Access the MAIN MENU and select SEARCH.

(Please Refer to the "Record Search Tab" & "Event Search Tab" sections of the manual)

Playback

Playback through the DVR

Click the file you have selected to view, and the footage will automatically play. Upon playing back the recorded footage, options at the bottom of the screen appear to manipulate the video. These options are also available on the remote control.

The options and their functions are as follows: (from left to right on the screen)

Rewind:	Rewinds the footage, the more times you click it the faster the footage will rewind (x2, x4, x8, x16).
Slow Forward:	Click to slow down the playback footage. The more times you click it, the slower the video will playback.
Play:	Plays selected footage at notmal speed.
Pause/Forward:	Click once to pause the playback footage. After that, each time you click it, the playback footage will move forward a frame and pause again.
Fast Forward:	Click to fast forward the footage, the more times you click it, the faster the footage will fast forward (x2, x4, x8, x16).
Mute:	Selecting this option will mute the sound from the playback footage. Sound will only play though if you have an audio-supported camera (not included) connected to your DVR.
Exit:	Exits the playback footage and returns you to the RECORD SEARCH or EVENT SEARCH option.

Playback

Computer Playback

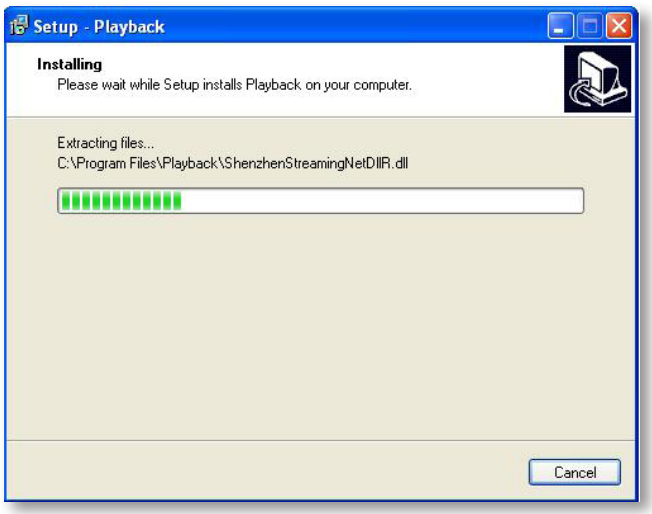
When you backup footage to a USB device, you can view the backed up footage on your computer. Viewing your footage from your computer allows you more options for manipulating the video as well as the ability to back up footage directly to your computer.

Viewing footage though your computer:

1. Insert included software CD into your disk drive and double click to install the playback software.
2. Follow the installation guide until the end.
3. Once everything is successfully installed, insert USB device into USB port on computer. Make sure USB device has your backed up footage on it.
4. Open the playback software you just installed.

Software Installation

Setup - Playback
Welcome to the Playback Setup Wizard
This will install Playback 2.3.0.4 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel



File Viewing

Be sure that the playback software is open on your computer. Instructions differ depending on what files you would like to open and play:

Adding one video:

1. Select and then click FILES. Find the USB device file, or any other area where backed up footage would be stored on your computer.
2. Make sure to view H.264 Files.
3. Select the file you would like to view and select OPEN.
4. Once you have selected OPEN, the video will NOT play automatically. You must prompt the video to play.
5. To view the footage, you must select play from the bottom menu. Once play is selected, the video will start.

Playback

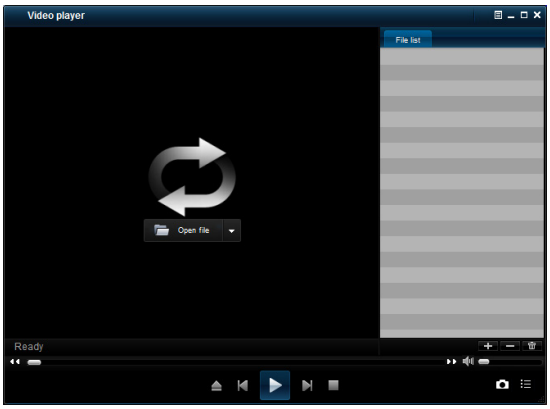
Adding an entire FOLDER:

1. Select + and select the folder containing your footage.
2. Highlight all of the files you would like to view and select OPEN.
3. Once you have selected OPEN, the video will play automatically.

Removing a file:

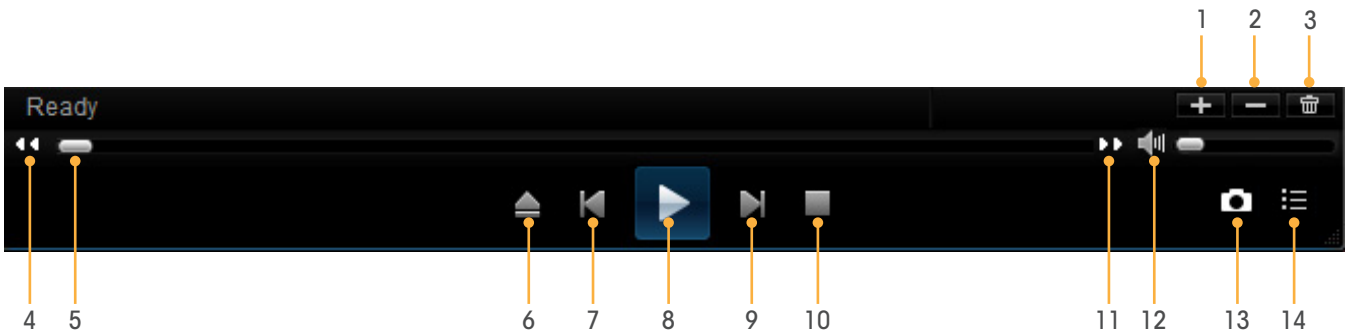
1. Select the file you wish to remove from the list and press −.
2. You can also clear the entire playlist by pressing 🗑.

Computer Playback Software



Software Functions

The software has many functions. The drop down menus allow you to adjust the video, the file menu allows you to open video files, and settings allow you to adjust certain settings in the software.



Video functions from the PLAY menu:

1.	Add Videos:	Add a single video or a folder of multiple videos to the playback list.
2.	Remove Videos:	Remove a single unwanted video clip from the playback list.
3.	Clear All:	Clears all videos from the playback list.
4.	Rewind:	Moves the video backwards.
5.	Minute Bar:	Shows your progress of time through any footage being played.
6.	Open:	Opens the last folder you accessed to add videos.
7.	Backward Frame:	Moves the video backward a frame.
8.	Play/ Pause:	Plays the footage. Once PLAY is pressed, the PAUSE ❙❙ button will appear.
9.	Forward Frame:	Moves the video forward a frame.
10.	Stop:	Stops the footage.
11.	Fast Forward:	Slows down video.
12.	Volume Bar:	Adjust the volume if you have recorded footage from an audio-enabled camera (not included).
13.	Capture Picture:	Takes a photo of the screen. When selected, a screenshot of the current video will be saved in a computer directory. The file location will appear beside the capture button.
14.	Show/ Hide File List:	Displays the video files that have been added to view. Also hides the list.

NETWORKING CHECKLIST

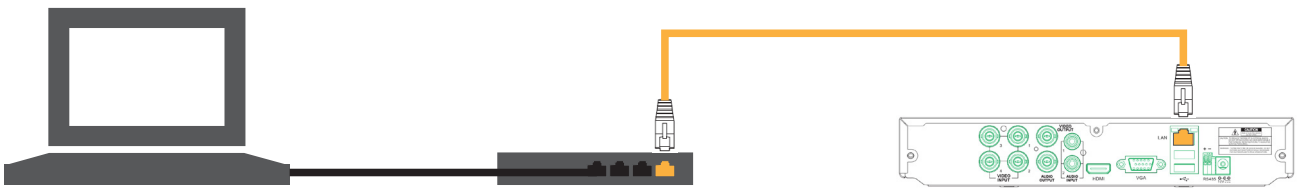
- ☑ The DVR connected to a router.
- ☑ The router connected to the Internet.
- ☑ A PC or laptop that is connected to the same router as the DVR. The PC can be connected by a wired or wireless connection.
- ☑ Internet Explorer® (IE) 6.0 or higher.
- ☑ A genuine and fully-updated version of Windows XP,® Vista® or newer.
- ☑ Install 1 Step™ Remote Viewing set-up software (Recommended)

Disclaimer:
Internet Explorer is a registered trademark of Microsoft Corporation.
Windows XP is a registered trademark of Microsoft Corporation.
Vista is a registered trademark of Microsoft Corporation.

Note: The computer and DVR need to be connected to the same router for initial setup. A computer will not always be necessary at the location to view the DVR.

Connecting DVR to a Router

1. Power off the DVR by removing the power cable from the back of the DVR.
2. Connect the included RJ-45 Ethernet Cable to the back of the DVR in the LAN port.
3. Connect the other end of the RJ-45 Ethernet Cable to an available port on the router.
4. Reconnect the power cable to the back of the DVR.



Networking Guide

Finding your DVR's IP Address

The DVR IP mode is set to DHCP by default. This means the DVR will automatically retrieve an IP address from the router that it is connected to. Unless your network requires a static IP address leave the DVR IP mode set as DHCP.

1. From the MAIN MENU, select NETWORK.
2. Confirm that the IP MODE is set to DHCP. This setting is acceptable for most users.
   - If the IP mode is not set to DHCP, use the drop down list next to TYPE and change the type so that it is set to DHCP. Click APPLY and EXIT to restart the DVR and retrieve an IP address.
3. Write down your IP ADDRESS, CLIENT PORT, HTTP PORT, MOBILE PORT and GATEWAY. This information will be used in the next few steps to view the DVR on your computer as well as for viewing the DVR over the Internet.

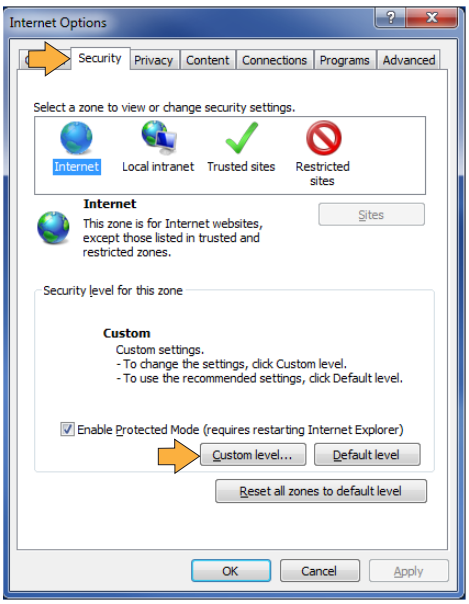
Note: If your router does not support DHCP, contact your network administrator to supply you with the proper IP information. If the DVR needs to store PPPoE (DSL/ADSL) settings contact your ISP (Internet Service Provider) for the proper IP address settings.

Preparing Your Computer for Viewing the DVR

Every computer that is accessing the DVR will need to be configured to download and run ActiveX controls. This change only needs to be made one time on the computer that is accessing the DVR. This can be done by performing one of the two following methods. See "Viewing your DVR outside your Network".

Method 1:

1. Open up Internet Explorer.
2. Click on TOOLS.
3. Click on INTERNET OPTIONS.
4. Click on the SECURITY tab, then the CUSTOM LEVEL button.

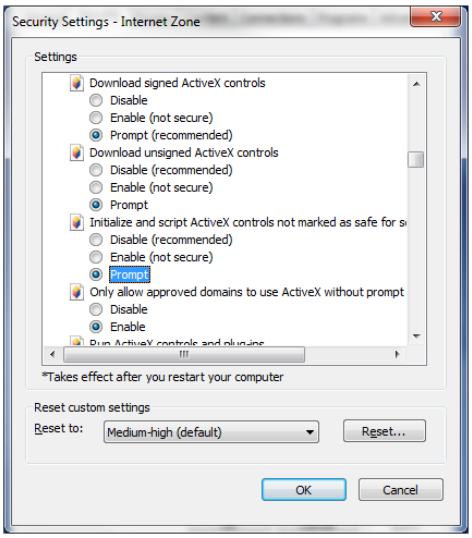


- A new window will open (Security Settings~Internet Zone)

Method 1 *(continued):*

5. Change the ActiveX settings listed below.

- Download signed ActiveX controls: PROMPT or ENABLED
- Download unsigned ActiveX controls: PROMPT
- Initialize and script ActiveX controls not marked as safe: PROMPT
- Run ActiveX controls and plug-ins: ENABLE
- Script ActiveX controls marked as safe for scripting: ENABLE



If this is an option:

- Allow automatic prompting for file and code downloads: ENABLE

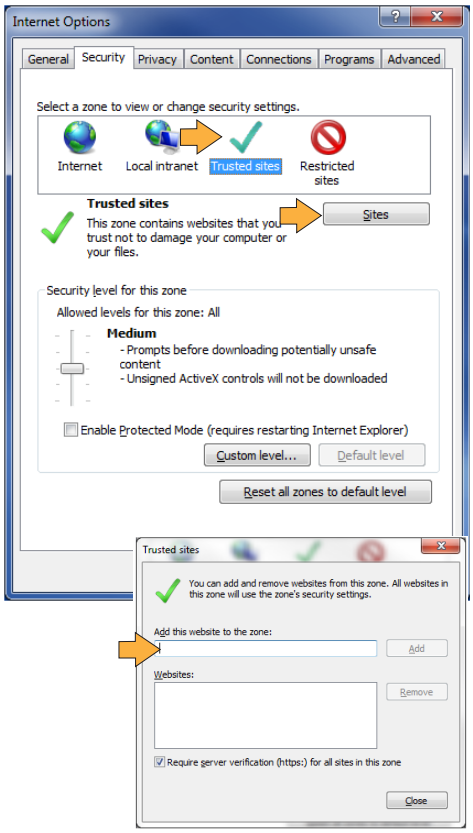
6. Click OK.
7. Click APPLY.
8. Close the options window.

Note: This method needs to be done on every computer you wish to view your DVR from.

Method 2:

Add the DVR's IP address to the Trusted Sites in Internet Explorer.

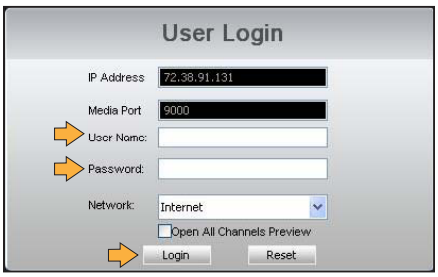
1. Open up Internet Explorer.
2. Click on TOOLS.
3. Click on INTERNET OPTIONS.
4. Click on the SECURITY Tab.
5. Click on TRUSTED SITES.
6. Click on the SITES button.
7. Type in the IP address of the DVR in the following format: http://192.168.0.108 and click ADD.
8. If "Require server verification (https:) for all sites ..." is selected you will need to uncheck the selection box.
9. Reduce the TRUSTED SITES zone to low. Click on DEFAULT LEVEL and change the security level of the zone to LOW by running the slider to the bottom. This will allow ActiveX controls from the DVR to be downloaded and the DVR to be viewed on the computer.
10. Click APPLY.
11. Click OK.



Viewing your DVR on your Computer

Now that the computer is installed with the necessary ActiveX changes listed above, you are ready to start viewing the DVR using your computer. Open Internet Explorer and type the IP address of the DVR into the address bar using the following format: http://192.168.0.108 (sample IP only) then press ENTER.

If the computer and the DVR are connected to the same router you can use the internal IP address to view the DVR. If the computer is not connected to the same router and is at a remote location you will need to use the external IP address of the DVR to view it from that computer.

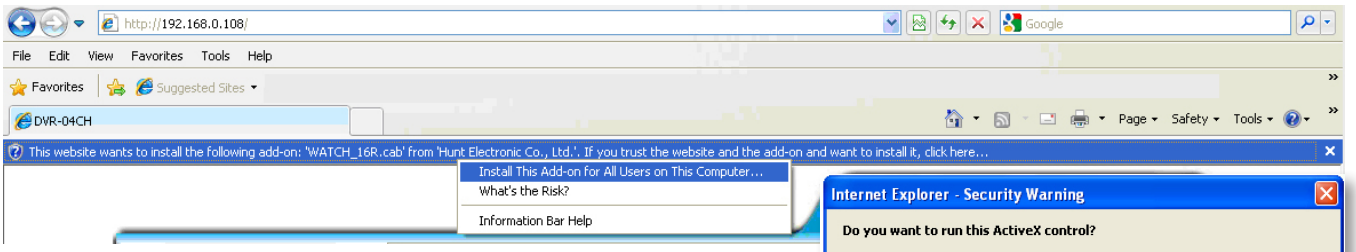


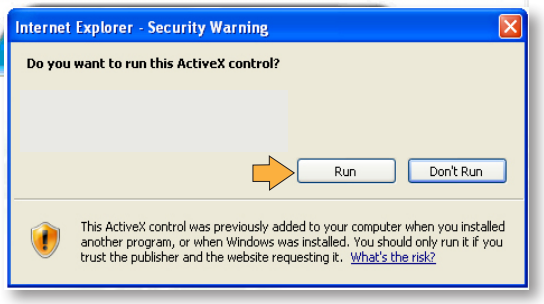
Log into the DVR (Using Internet Explorer):

1. By default, the DVR will require a user to input a username and password before being able to view the DVR online.
   The default username is: admin and the password is: 123456

Installing the ActiveX controls:

2. There will be a yellow information bar that pops up below the address bar in Internet Explorer. Click on the yellow information bar and then select INSTALL THIS ADD-ON FOR ALL USERS ON THIS COMPUTER…. Please be patient as the installation process can take 1-2 minutes.


http://192.168.0.108/
File Edit View Favorites Tools Help
Favorites
Suggested Sites
DVR-04CH
Page Safety Tools
This website wants to install the following add-on: 'WATCH_16R.cab' from 'Hunt Electronic Co., Ltd.'. If you trust the website and the add-on and want to install it, click here…
Install This Add-on for All Users on This Computer…
What's the Risk?
Information Bar Help


Internet Explorer - Security Warning
Do you want to run this ActiveX control?
Run
Don't Run
This ActiveX control was previously added to your computer when you installed another program, or when Windows was installed. You should only run it if you trust the publisher and the website requesting it. What's the risk?

3. If your ActiveX settings are set correctly you will see the following dialogue box.
4. Click RUN.

Once everything has installed and loaded, you will see the web player and the connected cameras.

Note: If you are using IE version 10+ you may have some difficulty in the initial setup of DVR access. If you are seeing a blue screen with no option to install Active X. Please check the address bar for the icon shown. Once clicked, it will give the option to disable Active X filtering.

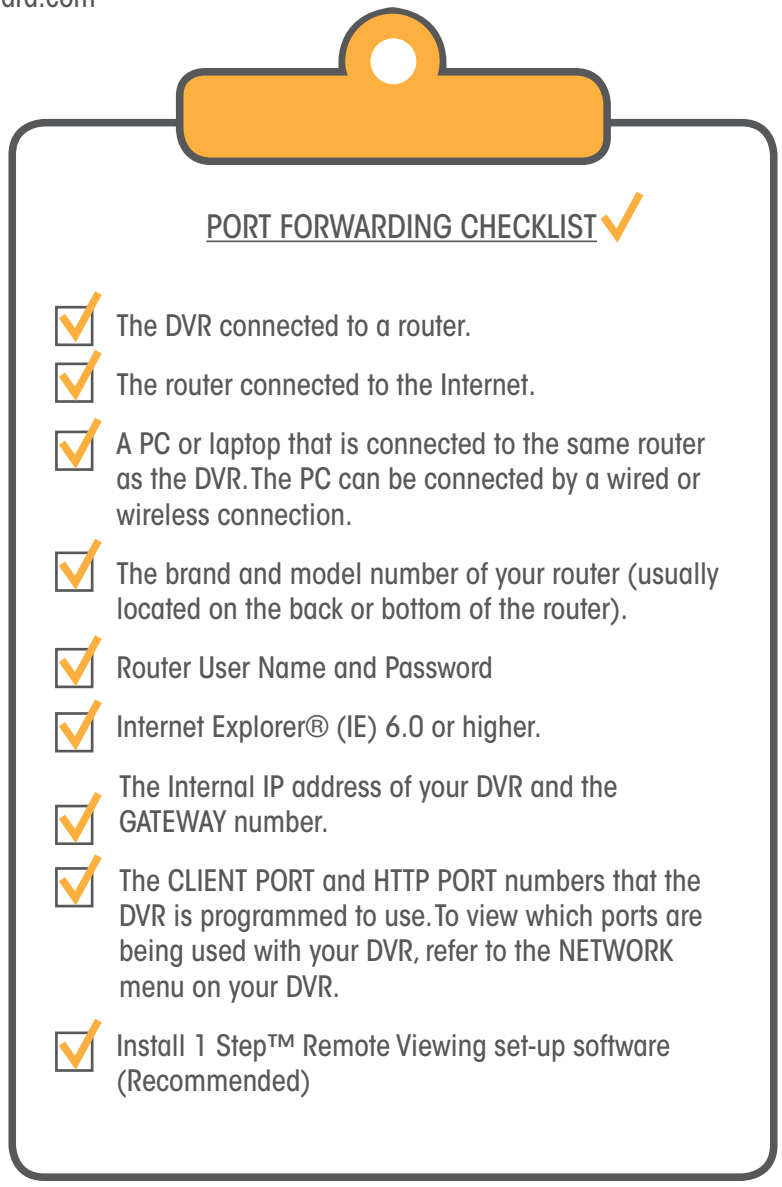
IE 11- Access your tools section on IE and add the DVR's IP address to the compatibility view settings. Once this has been completed please try to connect to the DVR's external IP address again.

Networking Guide

Viewing Your DVR From Outside of Your Network
Now that you have successfully viewed your DVR and cameras from a computer connected to the same router, it is time to set up your router to view the DVR while at a remote location. This process is called PORT FORWARDING and you can find easy-to-follow video tutorials and instructions on how to complete the required steps at:

Option 1 - http://www.http://defender-usa.com/support

Option 2 - www.portforward.com


PORT FORWARDING CHECKLIST
The DVR connected to a router.
The router connected to the Internet.
A PC or laptop that is connected to the same router as the DVR. The PC can be connected by a wired or wireless connection.
The brand and model number of your router (usually located on the back or bottom of the router).
Router User Name and Password
Internet Explorer® (IE) 6.0 or higher.
The Internal IP address of your DVR and the GATEWAY number.
The CLIENT PORT and HTTP PORT numbers that the DVR is programmed to use. To view which ports are being used with your DVR, refer to the NETWORK menu on your DVR.
Install 1 Step™ Remote Viewing set-up software (Recommended)

Note: Port forwarding is required if you want to view the DVR from a computer that is not connected to the same router.

Networking Guide

1 STEP™ Remote Viewing Setup Software
View your DVR footage remotely in minutes. 1 Step™ Remote Viewing Setup Software automatically connects your Defender DVR Security System for viewing online from anywhere in the world in 1 easy step.

- Compatible with PC or Mac
- Use with virtually any router
- Simply install and run the application, enter your DVR's IP address and you are viewing your footage online

Simply click here http://www.defender-usa.com/1step/ to get started!

1 STEP™ REMOTE VIEWING SOFTWARE INSTALLATION - FOR MAC AND PC (For initial setup only)

PLEASE FOLLOW THE STEPS BELOW BEFORE INSTALLING AND USING THE 1 STEP™ SOFTWARE.

STEP 1 - DVR/ROUTER SETUP

1. Connect DVR to Monitor/TV. Be sure to connect your DVR following the instructions in your DVR instruction manual.
2. Connect Ethernet cable directly into the Router and to the Ethernet port on the back of your DVR. Confirm that you have a solid green light and an orange blinking light by the Ethernet cable connection.
3. Connect the mouse to the top USB port at the back of DVR.

Please ensure your router is connected to your DVR before powering on the DVR.

STEP 2 - NETWORK TAB

1. Access the MAIN MENU of your DVR using your mouse or remote and click on the NETWORK tab.
2. Check the IP type (mode) and set it to DHCP for initial setup.
3. Reboot the DVR after setting IP type to DHCP (unplug power adapter for 10 seconds and plug back in).
4. Access the MAIN MENU of your DVR and return to the NETWORK section.

Write down the following information:

- **Your IP ADDRESS & GATEWAY number as they appear on the screen**
- **The CLIENT (MEDIA) port number**
- **The HTTP (WEB) port number**
- **The MOBILE port number**
- **Confirm that the UPNP is set to ENABLE**

PLEASE NOTE: The IP ADDRESS & GATEWAY should be populated with numbers (not all zeros). EXAMPLE ONLY (your numbers will be different): IP ADDRESS 192.168.001.101, GATEWAY 192.168.001.001. If you see all zeros in the IP ADDRESS & GATEWAY fields, the connection is bad between the DVR and your router.

- Ensure the Ethernet cable being used is LESS than 30ft long.
- Disconnect the power to the DVR.
- Check the Ethernet cable connections to both the router and the DVR and that you have a solid green light and an orange blinking light by the Ethernet cable connection.
- Reconnect the power to the DVR.
- Return to the NETWORK tab in your DVR menu to confirm that there is a connection between the DVR and the router.

Networking Guide

STEP 3 - INSTALLING THE 1 STEP™ SOFTWARE

This software will port forward the required ports for online viewing to your router automatically.

- Insert your MANUAL & SOFTWARE CD and click on the "1 Step™ Remote Viewing" software link for Mac or PC[1]; the software link is also available on our website at: **http://www.defender-usa.com/1step**
- Follow the on-screen display instructions for installation.
- Be sure to add the software icon to your desktop for easy access.

STEP 4 - LAUNCHING THE 1 STEP™ SOFTWARE

- Go to the icon on your desktop (or your saved location) and double click to launch the 1 Step™ Remote Viewing software.
- A DEFENDER® window will open and the software will immediately start searching for your router.
- Ensure the ports listed in the One Step Software match those in the NETWORK MENU of your DVR (retrieved in Step 2).
- Once you see the DVR SUCCESSFULLY NETWORKED message, a new window will appear with a link to your internal IP address and below it, a link to your external IP address.

Please write down both addresses (EXTERNAL and INTERNAL) as they appear on the screen.

STEP 5 - ONLINE VIEWING

- Click the TOP link for your internal IP address.
- An internet window will open linking you to the online viewing software allowing you to see your cameras.
- We recommend Internet Explorer® for PC users and Safari® for Mac users.

STEP 6 - DVR SETTINGS

- From the online viewer, go to the NETWORK section and change your IP Type to STATIC then click APPLY.
- This step will prevent your internal IP address from changing.

PLEASE NOTE: If the software has failed to connect to your router automatically, please follow the troubleshooting steps that the software provides in the on-screen display or go to the web link below:

http://defender-usa.com/support

Disclaimers:

1. **1 Step™ PC software is compatible with Windows XP, Windows Vista, Windows 7 and Windows 8 operating systems; 1 Step™ Mac computer software is compatible with Version 10.6 and higher.**
2. **©2014 DEFENDER®. All rights reserved. DEFENDER®, the DEFENDER® logo, 1 Step™ and other DEFENDER® marks may be registered. All other Trademarks are the property of their respective owners.**

Networking Guide

If You Cannot Connect

If the remote viewing does NOT connect, please check the settings below:

1. Make sure the browser is Internet Explorer 6.0 or higher and is on a Windows PC.
2. Make sure you forwarded both port 5000 AND 9000 for TCP and UDP.
3. Make sure all ActiveX controls are properly installed. (Selected the yellow pop-up bar and run all controls.)
4. Check all your network connections and go through the above steps again to make sure a configuration error was not made. You may have to configure PPPoE settings to match the settings provided to you by your Internet Service Provider (ISP). Consult your ISP for more information on your PPPoE settings.
5. Port forwarding is not set up correctly. Follow the instructional tutorials to ensure you have the correct port forwarding settings: at **http://www.http://defender-usa.com/support** and/or **www.portforward.com**.
6. A pop-up blocker is preventing the ActiveX controls from prompting you to install.
7. Your router is blocking your computer from using the External IP address from the same network as the DVR. Try connecting to the External IP Address from a computer that is not connected to the same network.
8. A DSL modem is preventing the connection because it is on a different sub-network. Contact your Internet Service Provider to assist with bridging the modem and router together.

Note: For Port Forwarding issues, please contact the DEFENDER® technical support team. For issues regarding your modem, please contact your Internet Service Provider, as making any modifications to your modem can render it inoperable.

Viewing Online Software Using External IP Address

1. From your computer at the DVR's location, open Internet Explorer and type in **www.whatsmyip.org** and press ENTER. This will direct you to a website that lists your external IP address on the top of the page. Write down your external IP address.
2. From a computer outside of your DVR's network, open Internet Explorer and type in your external IP address, followed by the port you forwarded for your DVR in the following format: http://74.123.3.34:5000 (sample IP only).
3. Follow the login screen for your DVR. The default username is admin and the password is 123456.
4. Install any ActiveX controls or software settings that may appear.
5. Once everything is properly installed, you will be viewing the online software. Please refer to ONLINE SOFTWARE in this manual.

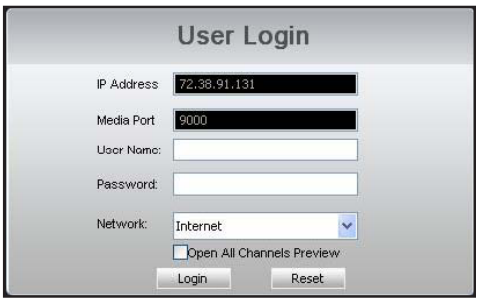
Networking Guide

DDNS (Dynamic DNS) Setup
Instead of having to type in the IP address to access the DVR online, you can use DDNS to create an easy-to-remember website name. The DVR has a DDNS provider web address built into it.

Configuring the DVR to work with DDNS:

1. Access the DVR MAIN MENU and select NETWORK.
2. Click on the DDNS tab.
3. For complete instructions on setting up DDNS, please see DDNS TAB in this manual.

Logging Into Software

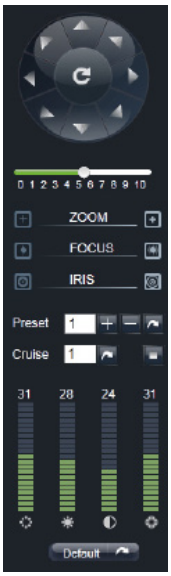


1. If you created a DDNS account, type in your account's host name in the Internet Explorer address bar. If you didn't create an account, you can use your external IP address (if on a different computer) or your DVR's internal IP address (if on a computer connected to the same router).
2. Before you view the online software you are asked to login with a password. You can either use the admin or your own user password and the footage will appear.
3. The login screen also has the option to adjust which connection you are viewing the software with (internet or LAN). Leave this option set to Internet.
4. Default username: Admin and Default Password: 123456
5. Once the password is inserted, select LOGIN and the DVR software and footage will appear.

Online Software

PTZ Controls *(if PTZ cam is connected)*

1	Zoom	+ Zooms In / — Zooms Out
2	Focus	+ Improves Focus / — Decreases Focus
3	Iris	+ Lets light in / — Reduces light in image
4	Arrow Keys	Moves the camera around
5	Speed Bar	Located above the zoom buttons, the SPEED bar sets the speed of the PTZ camera
6	Default	Restores Default Settings



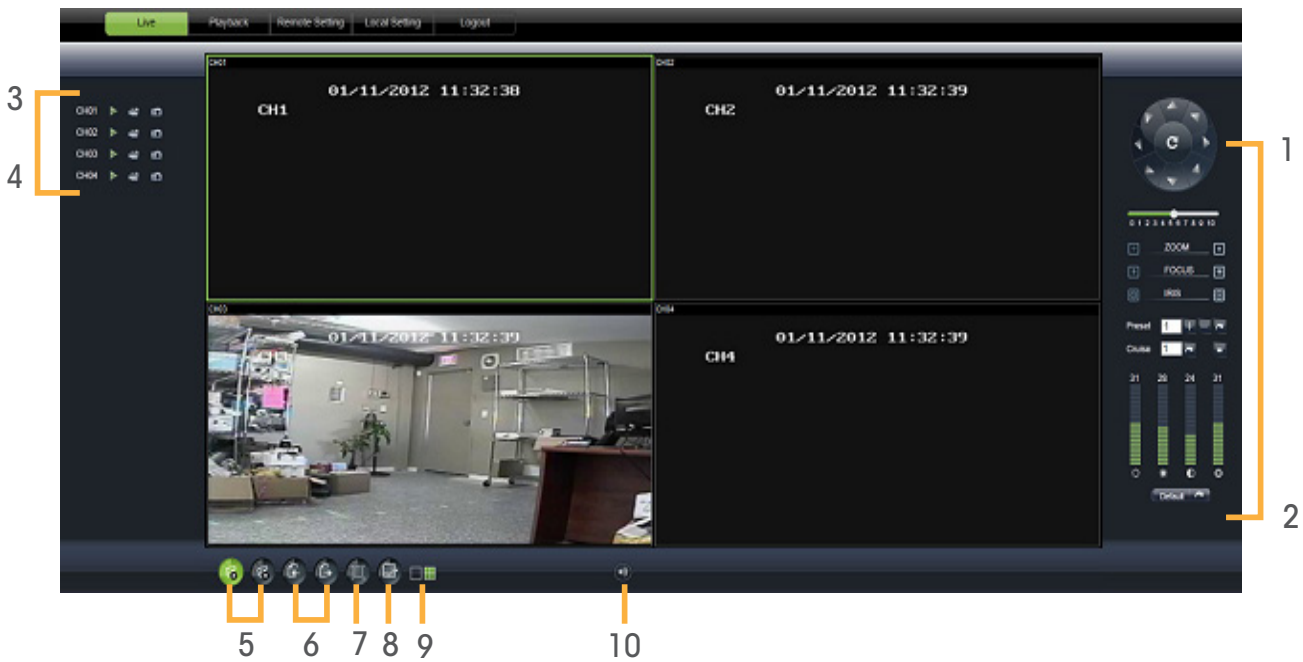
Setting up cruise:

1. Select the areas you would like the PTZ camera to cruise and click the + button at each desired position.
2. Select the – button, to clear the set position.
3. The arrow next to CRUISE starts the PTZ cruise. The square stops the PTZ cruise.

Online Software

Live Mode
The LIVE tab at the top of the online viewing screen allows you to view the DVR in LIVE mode.

1	PTZ Camera Controls	Opens PTZ control menu	6	Display Prev/Nxt CH	Cycle through and view 8 or 16 cameras in quad screen mode
2	Cruise Setup	Setup directions for the PTZ to follow	7	Widescreen View	Expands the camera screen you have highlighted
3	Record	Records footage directly to your computer	8	Channel Display	Different options for displaying the cameras
4	Capture	Take a snapshot of the screen and save it to your computer	9	Single/Quad View	View cameras in single view or four seperate views
5	Open/Close All Live Channels	View or stop all live feed from showing	10	Volume Control	Controls the volume for audio-supported camera or microphone (not included)



Online Software

Other Mouse Options

When you right click the mouse, a separate menu appears and allows you to perform the following functions:

1	Open/close individual windows	• Click on the screen. • A green box will appear around the window. • Right click your mouse and select OPEN/CLOSE
2	Open/close all screens	• Right click and select from MAIN MENU
3	Start recording	• Right click and select from MAIN MENU.
4	Stop recording	• Right click and select from MAIN MENU.

Playback

This tab allows you to search, view and backup previously recorded footage that is stored on your DVR's HDD. You can also narrow down your search by type of footage and what camera it was recorded from.

Searching your footage:

1. The DVR menu cannot be accessed by two people using the same Administrator using the same username and password. If the DVR's menu is being accessed by another Administrator (using the same username and password), you will be unable to retrieve or view footage. Authorized user access will not affect menu access at the same time as the Administrator.
2. Click a date on the calendar to view footage. If footage is available, it will be in bold. Click SEARCH
3. It may take a few moments to load the available footage. The footage will appear in the space below the calendar.
4. The list will display the footage in the following format:
   - The time the footage was recorded, and the channel the footage was recorded on.
5. Select the channel screen you would like to view and press PLAY at the bottom of the screen.

Online Software

Narrowing your Video Search:

1. Using the drop down list below the calendar, select the camera and type of footage you would like to search.
2. Select SEARCH and only the type of footage from the camera selected will be displayed in the list.

Playing Back Footage

When you press play, it may take a few minutes to load. The footage will begin playing automatically. The playback options are located at the bottom of the screen.

	Play:	Pauses playback.
	Pause:	Prompt the video to begin playing.
	Stop:	Stops the footage and a blank screen will appear. Press PLAY to play the selected footage from the beginning.
	F.F:	Fast forwards through the footage. The more times you select this, the faster the footage will move forward (2x, 4x, 8x, 16x).
	Rewind:	Rewinds the footage backwards. The more times you select this, the faster the footage will move backward (2x, 4x, 8x, 16x).
	Next Frame:	Moves the footage forward a single frame.
	Volume:	For audio-supported camera (not included). Click and drag this will increase or decrease the volume of the playback footage.
	Download:	Downloads selected video to your computer. Backed up footage will automatically save to selected location on your computer. To select a location see SETTINGS information in this manual.
	Video Clips:	Displays specific portions of a file. Click the icon to begin. Select again to stop. The file will be saved in the location that you set.
	Capture: settings.	Takes pictures of specific portions of a file. Select the save location in local
	Start All Playback:	Starts playing all channels that have recordings.

Online Software

Playing Back Footage (continued)

	Stop All Playback:	Stops playing all channels that have recordings.
	Stop All Menu:	Stops all playback, stops all downloads, and stops all windows.
	Single CH View:	Select to view one channel.
	Quad Screen View:	Select to view 4 channels at once.
	Widescreen View:	Switches the footage to widescreen format.

Remote Settings - Online Setup

The REMOTE SETTINGS tab allows you to make some adjustments to certain DVR settings. The menu options that can be adjusted include:

- Alarm Parameters
- PTZ Parameters
- Network Parameters
- Device Parameters
- Device Management
- Local Settings

Each function works much like the MAIN MENU options on the DVR.

Display

You can adjust the display name, the position, as well as the record time. You can also enable and set up a privacy zone

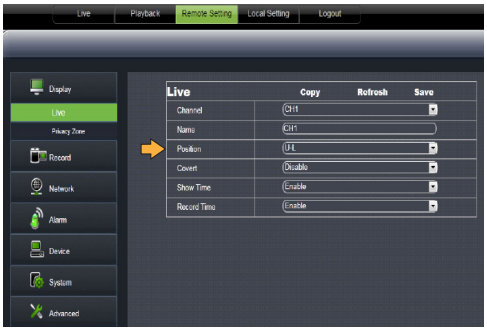
Live

Name

This will be the name of the camera that is displayed on screen. It is a good idea to name the camera something that reflects what the camera is monitoring, i.e. Garage or Driveway. (Maximum of 8 characters).

1. Select the camera channel.
2. Left click in the NAME field, the keyboard will open.
3. Enter the name of the camera, then click the ENTER key.
4. Click SAVE in the upper right corner to save your changes.
5. Repeat steps 1-4 for each camera.

Online Software



Changing the title POSITION:

1. Left click the POSITION drop down list.
2. Select the position of the NAME on the camera screen. If you do NOT want the name to be displayed, set the position to OFF.
3. Click SAVE in the upper right corner to save your changes.
4. Repeat for all desired cameras.

U-L → Upper-Left
D-L → Down-Left
U-R → Upper-Right
D-R → Down-Right

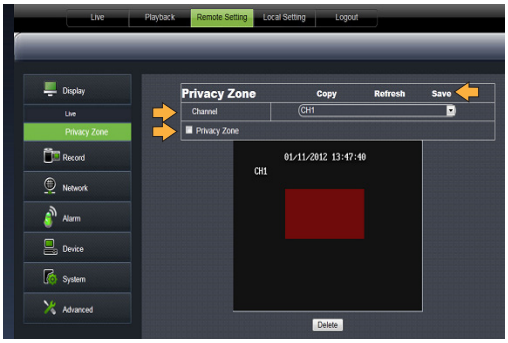
Turn the LIVE VIEWING of a camera on or off:

1. Select the channel you would like to view live.
2. Click the box next to COVERT.
3. Select ENABLE to turn on the camera or DISABLE turn off the camera.
4. Repeat for all desired cameras.
5. Click SAVE in the upper right corner to save your changes.

Turn SHOW TIME display or RECORD TIME display off or on:

1. Select the SHOW TIME option or RECORD TIME option and choose either ENABLE or DISABLE .
2. The time display will now be changed.
3. Click SAVE in the upper right corner to save your changes.

Privacy Zone



Setting PRIVACY ZONES:

1. Select the camera next to CHANNEL.
2. Click the PRIVACY ZONE checkbox.
3. Click and drag the boxes around the screen to place them where you need privacy zones. These boxes will turn RED.
4. Click SAVE in the upper right corner to save your changes.
5. Repeat for all desired cameras.

Deleting PRIVACY ZONES:

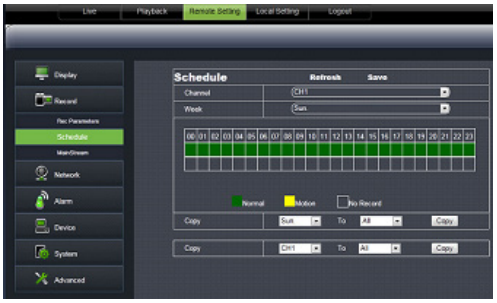
1. Click the RED PRIVACY ZONE.
2. Select the DELETE button below the black screen.
3. Click SAVE in the upper right corner to save your changes.

Online Software

Record

The RECORD option allows you to record from your computer. Here you can set which channel to record as well as set up a recording schedule and recording resolutions.

Rec. Parameters



Adjusting the DVR record parameters:

1. Select the REC PARAMETERS tab.
2. Left click the CHANNEL drop down list and selct a channel.
3. Click SAVE in the upper right corner to save your changes.

Schedule

Setting your RECORD SCHEDULE:

1. Select the SCHEDULE tab.
2. The top row represents SCHEDULED RECORDING. The bottom row represents MOTION RECORDING.
3. Select the DAY of the week on which you want to schedule a recording.
4. Each box corresponds to an hour. Click the boxes for the times that you wish to record in the row that corresponds to the type of recording that you have selected.
5. Click SAVE in the upper right corner to save your changes.

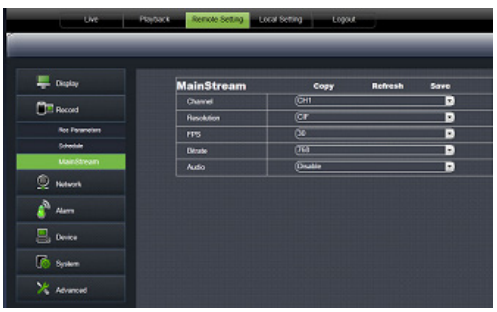
COPY settings from one day to other cameras:

1. Select the COPY drop down list and highlight the day you want copied.
2. Select the TO drop down list to select a specific day or ALL.
3. Press the COPY button and the copied schedule will appear in the selected days.
4. Click SAVE in the upper right corner to save your changes.

COPY settings from one camera to other cameras:

1. Select the COPY drop down list and choose a camera number.
2. Select the TO drop down list to select a camera number or ALL cameras.
3. Click the COPY button. The settings will now be copied to your specified camera(s).
4. Click SAVE in the upper right corner to save your changes.

Mainstream



Adjusing the recording RESOLUTION parameters:

1. Select the MAINSTREAM tab.
2. Select the drop down lists and choose the frame rate, video quality, and resolution values.
3. Click SAVE in the upper right corner to save your changes.

Online Software

Network

The NETWORK tab is your gateway to viewing your footage online and contains the DVR information you need to set up online viewing. Since you have already set up your networking viewing, the NETWORK menu can be used for reference purposes. The options and selections in this NETWORK menu are the same as the settings on your DVR. For more networking information see the NETWORKING GUIDE in this manual.

Basic NETWORK settings:

Used only as a reference as you have already set these parameters with the DVR. Here you can view the NETWORKING TYPE, IP ADDRESS and ROUTER INFORMATION.

DDNS

DDNS settings:

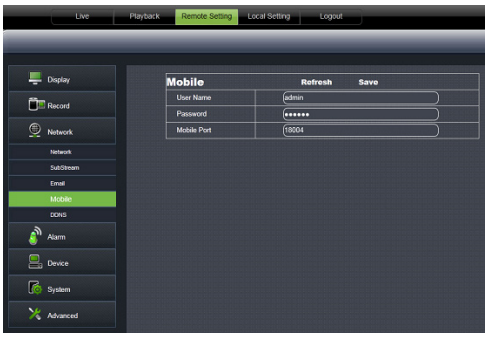
1. To set DDNS protection on your DVR feed, enter a USERNAME and PASSWORD in this menu.
2. Click SAVE in the upper right corner to save your changes.

Mobile

MOBILE settings:

You can view your footage from your smartphone. In the MOBILE menu, you can assign a username and password to protect your video feed.

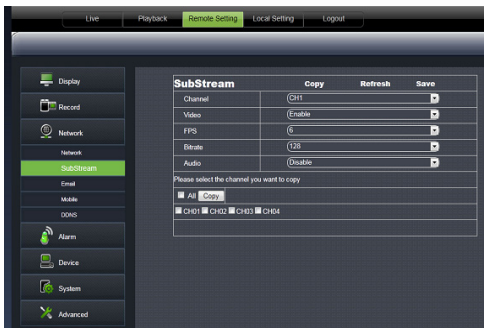
1. Enter in a USERNAME and PASSWORD to protect your video feed.
2. It is necessary to assign Port 18004 for the mobile stream to be transferred.
3. Click SAVE in the upper right corner to save your changes.



Substream

Adjusting the SUBSTREAM resolution parameters:

1. Select the SUBSTREAM tab.
2. Select the drop down menus to adjust the frame rate, video quality, and resolution values.
3. Click SAVE in the upper right corner to save your changes.



Email

Receiving EMAIL notifications:

1. Select the EMAIL drop down list and choose ENABLE.
2. Select the ENABLE drop down box next to SSL.
3. Select the SMTP Port and input the port number provided by your email provider. (For emails the port number is 25. The Gmail port number is 465).
4. Select the SMTP Server box and input the SMTP server address provided by your email provider. (Gmail SMTP address: smtp.gmail.com).
5. Select the SENDER EMAIL box and input the email in which the email notification will be coming from.
6. Select the SENDER PASSWORD box and input the password for the sending email account.
7. Select the RECEIVER EMAIL box and input the email in which the email notification will be going to.
   - The SENDER EMAIL and the RECEIVER EMAIL can be the same email.
8. Select the INTERVAL drop down box and select TIME INTERVAL for email frequency (1min, 3min, 5min, 10min).

Online Software

Alarm

Enable or disable motion detection, adjust the motion detection area as well as enable the alarm and the length of it.

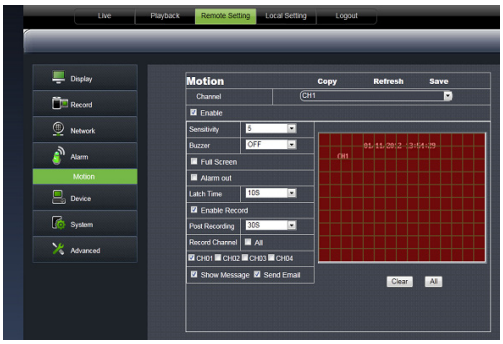
Motion

To enable/disable the status of MOTION DETECTION for each camera:

1. Select the CHANNEL drop down list and choose the camera.
2. Click the ENABLE checkbox to turn the motion detection on for that camera.
3. Select the SENSITIVITY drop down list to adjust the motion detection sensitivity. Select 1 to 8 from the drop down list to adjust the sensitivity. 1 being the lowest sensitivity and 8 being the highest sensitivity.
4. Click SAVE in the upper right corner to save your changes.
5. Repeat for all desired cameras.

Setting the MOTION DETECTION area:

1. The screen is fully RED; this is because the DVR is automatically set to detect motion throughout the whole screen.
2. To adjust the MD area for the desired cameras, highlight the squares where you do NOT want motion detected and click the mouse. When the area is no longer shaded in red, the area will no longer detect motion.
3. Click SAVE in the upper right corner to save your changes.



Device

The DEVICE tab allows you to view hard drive information such as HDD status and available space. You can also set the overwrite setting. This is a useful menu when troubleshooting your DVR.

HDD

- HDD Status: Displays the current operating status of the hard drive. If the hard drive is functioning normally it will display OK.
- Avail Space: Tells you how much space is available to record on the HDD.
- Total Space: Tells you the total amount of space on your HDD.
- Available Time: Amount of remaining time available to record.

Overwrite

When the HDD has overwrite enabled, it will record over the oldest footage once the HDD is full instead of stopping the recording. This way the DVR is always recording. If you want to stop recording when the HDD is full, set overwrite to Close.

Enable/disable OVERWRITE mode:

1. Select the OVERWRITE drop down list and choose either AUTO to turn overwrite on, (you can also set the DVR to overwrite for just a few hours or days) or choose CLOSE to turn overwrite off.
2. Click SAVE in the upper right corner to save your changes.

Online Software

PTZ

PTZ setup allows you to input information for a PTZ camera. (PTZ cameras not included). The information must be entered in the DVR to ensure compatibility with your PTZ camera.

Input the PTZ information:

1. On the PTZ setup menu, select the channel the PTZ camera(s) are connected to. Input the proper information for your PTZ camera.
2. The information you need to select will be specified in the PTZ manufacturer manual.
3. Choose to enable/disable cruise mode for the PTZ camera.
4. Click SAVE in the upper right corner to save your changes.

System

The SYSTEM tab allows you to view your device name and serial number, as well as the hardware and software versions. This is a useful menu when troubleshooting your DVR.

General

This menu option allows you to adjust the date and time, change the format of the displayed date, adjust the time format, set time zones and adjust the DVR for daylight saving time.

Adjusting the DATE FORMAT:

1. Select the DATE FORMAT drop down list and choose a date format.
2. Click SAVE in the upper right corner to save your changes.

Adjusting the DATE:

1. Left click in the DATE field, the keyboard will open.
2. Enter the date in the order of the selected format (listed above time format), then click the ENTER key.
3. Click SAVE in the upper right corner to save your changes.

Adjusting the TIME FORMAT:

1. Select the TIME FORMAT drop down list and choose a 12-hour clock or a 24-hour clock.
2. Click SAVE in the upper right corner to save your changes.

Adjusting the TIME:

1. Left click in the TIME field, the keyboard will open.
2. Enter the time in the order of the selected format (listed above time format), then click the ENTER key.
3. Click SAVE in the upper right corner to save your changes.

Selecting the LANGUAGE:

1. Select the LANGUAGE drop down list and choose a language.
2. Click SAVE in the upper right corner to save your changes and exit the menu.
3. The system will restart and open with your set language settings.

Online Software

DST

DST stands for Daylight Saving Time. You can adjust the DVR to change its time for you when daylight saving time approaches, so you don't have to go back and do it yourself. You can also customize when the DVR changes for DST.

Turn the DVR DST on:

1. Select the checkbox next to DST and a box will appear.
2. Select the checkbox next to DAYLIGHT SAVING TIME to enable.
3. Select the TIME OFFSET drop down list and choose if you would like your clock to go forwards or backwards by 1 or 2 hours.
4. Select the DAYLIGHT SAVING TIME MODE drop down list and choose if you would like DST to change in a specific month and week or on a specific date.

   If by Week
   - Select the START TIME drop down list and choose the month.
   - Select the drop down box below and select the WEEK.
   - Select the drop down box below and select the WEEKDAY.
   - Repeat steps above for END TIME.

   If by Date
   - Left click in the START TIME field, the keyboard will open.
   - Enter the TIME you want the DST to change, then click the ENTER key.
   - Repeat steps above for END TIME.

5. Click SAVE in the upper right corner to save your changes.

Network Time Protocol (NTP)

You have the option of setting your DVR to sync its time to various web servers. This ensures your DVR always has the correct time. It will also automatically adjust for daylight saving time.

Setting the DVR to sync with an NTP time server:

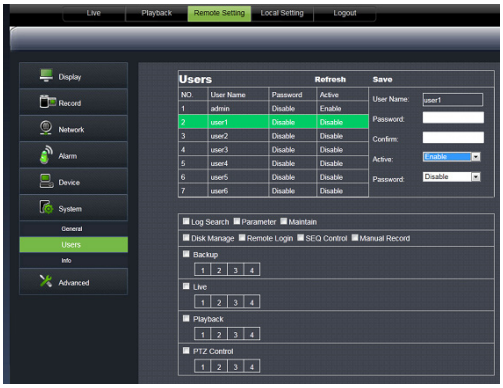
1. Select NTP SETUP. Select ENABLE or DISABLE.
2. The NTP server options will come up. Choose one of three time servers.
3. Select the SERVER drop down list and choose a server.
4. Select the TIME ZONE drop down list and choose a time zone.
5. Click the UPDATE NOW button.
6. Click SAVE in the upper right corner to save your changes.

Online Software

Users

The USERS tab allows you to customize passwords and set different authority levels for other users.

Authority settings:



1. Select the USERNAME you wish to change settings for.
2. The password status and information will come up in the list.
3. Here you can enable users and customize the type of authority they are allowed to access.

Changing the password:

You have the option to change the password for the user and the administrator. A USER will only be able to access the search menu to view saved footage, while the administrator has unlimited access.

BOTH DEFAULT PASSWORDS ARE 123456.

1. Highlight and click the USER you wish to change the password for.
2. Make sure PASSWORD ENABLE is set to ENABLE.
3. Type the password you would like in the box next to PASSWORD.
4. Type in the same password again next to CONFIRM to confirm the password.
5. Click SAVE in the upper right corner to save your changes.

Info

The INFO tab allows you to view information about your DVR such as:

- Device Name
- Device ID
- Device Type
- MAC Address
- Currently installed software version
- IE Version
- Hardware Version
- Keyboard Version

Online Software

Advanced
Adjust the device alarms for disk errors, video loss, or when your HDD is full.

Events

Enable ALARM settings:
1. Select the drop down menus to select whether the DVR alarm will sound when the HDD is low on memory or is not working properly or if there is video loss.
2. Select the ENABLE checkbox to turn on the alarm for the specific issue.
3. Select the drop down box next to BUZZER to select the buzzer length.
4. Select the SHOW MESSAGE checkbox if you would like a message to be displayed on your monitor when motion has been detected.
5. Select the SEND EMAIL checkbox if you would like an email alert when motion is detected. You must have email notification set up to receive alerts.
6. Click SAVE in the upper right corner to save your changes.

Maintain

To turn AUTO MAINTENANCE on or off:
1. Select the MAINTAIN tab.
2. Select the drop down box next to AUTO REBOOT and select Enable or Disable.
3. Input the date and time with the drop down boxes when you would like the reboot to happen.
4. Click SAVE in the upper right corner to save your changes.

Load Default
Loading default settings will restore all settings on your DVR to the default settings except your passwords and time adjustments.

1. Highlight and select LOAD DEFAULT.
2. Check the boxes where you would like the settings restored.
3. A screen will appear asking "ARE YOU SURE YOU WANT TO RESTORE THE DVR TO THE DEFAULT SETTINGS".
4. Once loaded, the factory default settings will be set.

Firmware Update

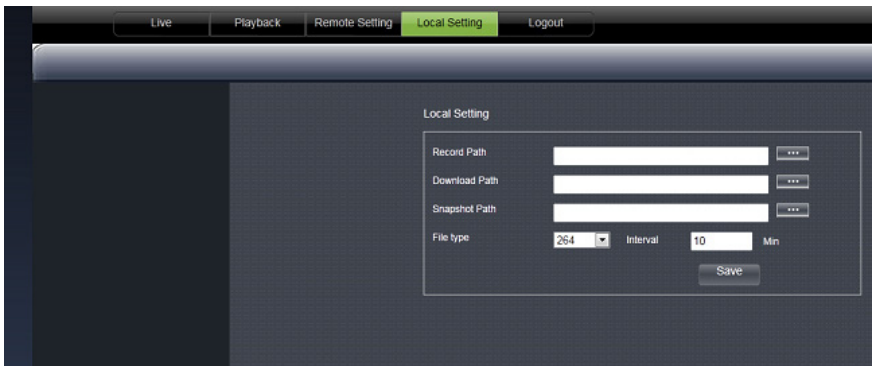
1. Highlight and select FIRMWARE UPDATE.
2. Select the path to where you have saved the firmware once downloaded.
3. Select the START button.

Online Software

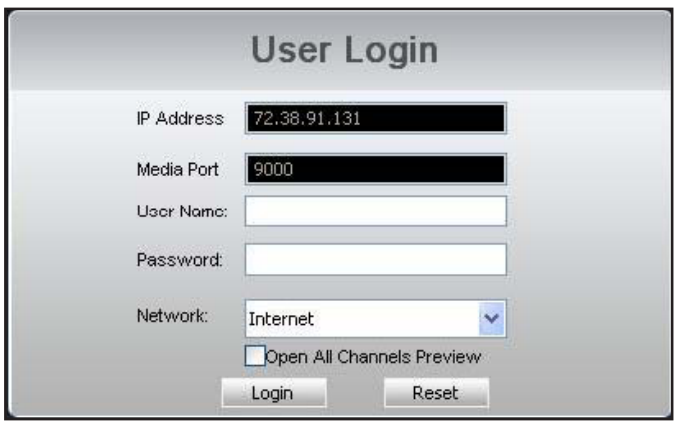
Local Settings

Save Paths
You can select where to save the files you capture, record and back up on your computer.
To change where the files are saved:

1. Click the (…) box next to the RECORD PATH area and a folder browse screen will appear.
2. Find the location you want the files to be saved to and double click the area.
3. Select OK.
4. The file you want the footage/pictures saved to will appear in the box.
5. Click SAVE to save settings.



Logout
Clicking on the LOGOUT tab logs you out of the online software and DVR viewing. When this tab is clicked, the software will shut down, the screen will refresh and return to the initial user login screen.



Mobile Viewing

This DVR is compatible with iPhone®, BlackBerry®, and Android™ operating systems on 3G networks. Before you can access your DVR on a mobile phone you must make sure that the DVR has the proper network settings, has been port forwarded, and that you have the proper viewing software on your phone.

Set username, password and port on DVR:

1. From the NETWORK tab, select MOBILE.
2. Insert a port for the mobile footage to run from. Port 18004 is a good default port to use. Make sure that you port forward this port on top of the other two ports.
3. Insert the USERNAME and PASSWORD which a mobile user would use to access the DVR footage.
4. Select APPLY to save your settings.

Port Forwarding:

Follow the port forwarding instructions found in the PORT FORWARDING section of this manual and use the port assigned in mobile viewing setup screen. Be sure to forward the MOBILE PORT 18004 IN ADDITION to ports 5000 and 9000.

iPhone® Viewing

Before viewing your DVR footage from your iPhone®, please ensure that you have iTunes® set up on your computer with an activated account and that you have port forwarded an extra port for mobile viewing. We recommend a free app called ASee, available from your devices app store. This is free software and is compatible with our systems. All port forwarding must be done prior to using this app.

**Please note: ASee+ and ASee pro are not compatible with Defender products*

Download from App Store:

1. Open App Store.
2. Select the search icon at the bottom of the screen. Search "ASee".
3. Select the ASee application, then Install.
4. Once application has downloaded, it will appear on your iPhone® screen.

From your computer or iPhone®:

1. Open your iTunes® program and access the iTunes® store.
2. From the iTunes® store, search "ASee". The ASee application will then appear.
3. Click on the application, open the download page and download ASee.
4. Once finished, the downloaded file will appear under APPLICATIONS in your iTunes® library.
5. Connect your iPhone® to your computer. Your iPhone® will be displayed under DEVICES on the left side in the iTunes® menu. Click to open the device.
6. Open the applications menu from the top tab area and select SYNC APPLICATIONS and then select ASee to add the ASee application to your iPhone®.
7. The ASee application will now appear on your iPhone® screen.

Disclaimer: iPhone is a registered trademark of Apple Inc.
BlackBerry is a registered trademark of Research in Motion Limited.
Android is a trademark of Google Inc.

Mobile Viewing

From your iPhone®:

1. Open and Run the ASee application.
2. Select the setup icon in the bottom right corner of the screen.
3. Fill in the following information:

Server IP: Input your DVR's IP address.

Port: Input the port you forwarded in the MOBILE setup. Ensure that this port is also listed under mobile settings on your DVR.
Default Port:**18004** Default username: **admin** Default password: **123456**

User ID: Input the user ID that you have set under MOBILE settings on your DVR.

4. Once all the proper information has been entered on your iPhone® and on your DVR, press the BACK button in the top left corner of the iPhone® screen.
5. Press the PLAY button in the bottom left of the screen to start playing live footage from your DVR.
6. Fore more information on the Asee app, please review the buttons and connections section below.

A- PTZ Direction (left, right, up, down)

B- PTZ Lens control. Area Selection, ZOOM+, ZOOM-, Aperture(I+, I-), Focus(focus +, focus-).

C- Channel selection keys

D- Function buttons from left to right: Pause, Full-Screen, Snapshot, Setup, Help and Access Setup

Note: Although the viewing software is free, you must have an iTunes® account to download it.

BlackBerry® Viewing

Before viewing your DVR footage from your BlackBerry®, please ensure that you have the Blackberry® desktop manager installed on your computer and you have port forwarded an extra port for mobile viewing.

Download from App World™:

1. Open BlackBerry App World™.
2. Search "ASee".
3. Select the ASee application and select download.
4. Go to MyWorld and select the ASee application to install.
5. When prompted, select Reboot Device Now.
6. Go to your Downloads folder to launch the ASee application.

Mobile Viewing

From your computer:

1. Connect your BlackBerry® to your computer and open up the BlackBerry® desktop manager.
2. Select the APPLICATION LOADER option from the main menu. From there, select the START button for adding/removing any applications to your BlackBerry®.
3. Browse and select the ASEE.ALX file from the Blackberry® folder on the software CD and click NEXT.
4. Once installed on your BlackBerry®, select the FINISH button to complete the installation.

From your BlackBerry®:

1. The installed software will be located in the DOWNLOADS directory. From the downloads menu, select the ASee software icon to start the application.
2. Once the program has started, select the settings icon , from the settings screen and input the following information:

Host: Input your DVR's IP address.

Port: Input the port you forwarded for your mobile setup. Ensure that this port is also listed under mobile settings on your DVR.

User: Input the user ID that you have set under the mobile settings on your DVR.

Password: Input the password that you have set under the mobile settings on your DVR.

Default: Input the channel you would like to start watching - the program allows you to change channels once the footage has loaded.

Wi-Fi: If connecting with mobile network select NO for this option. If connecting through a wireless network, select YES for this option.

3. Once you have input all the proper information, select SAVE to save the information and close the settings screen.
4. Once the settings screen is closed, select the PLAY button to begin playing the footage.
5. For more information on Asee, see the buttons and their functions below.

A- Connect/disconnect
B- Full screen
C- Snapshot
D- Setup
E- Help
F- Next page
G- PTZ Control

Mobile Viewing

Android™ Viewing

From your Android™ phone:
The easiest way to download and install the Asee application is directly from your Android™ phone's marketplace. A WI-FI network or 3G network must be available to your phone to download using this method.

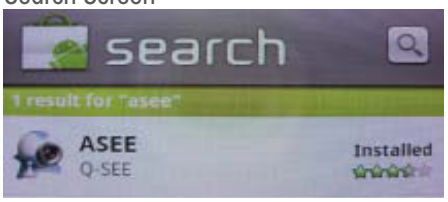
1. Turn on the phone and enter the main menu.
2. Select the MARKET icon, and select the SEARCH icon on the top right hand of the screen.
3. In the search field, type in Asee. The application will come up in the results. Asee is a free application.
4. Select the Asee application and press the INSTALL button on the bottom of the screen. The application will begin downloading and install automatically when the download is finished.
5. Once the application finishes installing there will be an option to open the application. Choose this option on the bottom of your screen.
6. From now on, the Asee application will be available from your main menu.

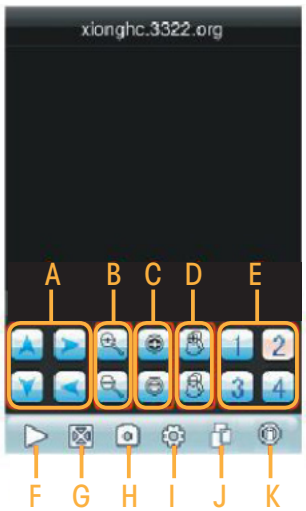
Installing viewing software to your phone's SD card, from your computer:

1. Connect phone to computer and open the memory card folder.
2. Insert included CD into drive and open up to view files.
3. Copy and paste the android-viewing software onto the phone's memory card or installation folder.
4. Open the SD card folder on your Android™ phone and choose the ASEE.APK file.
5. The file will install and be available from your main menu.

Market Main Screen

Search Screen





A- PTZ Direction
B- Zoom+ -
C- Aperture
D- Focus+ -
E- CH Select
F- Play & Pause
G- Full/Normal Screen
H- Snapshot
I- Setup
J- CH change
K- Help

Troubleshooting

Mouse is not working	• Ensure mouse is connected to the top USB port on the back of the DVR. • Try connecting the mouse to a different USB port to ensure it is not defective.
Remote control is not working	• Ensure the batteries are installed correctly. • Ensure you are pointing the remote at the IR sensor. • Point the IR Remote at the camera lens and press a button. You should be able to see the IR LED flicker through the DVR monitoring device. • Try replacing the batteries in the remote.
HDD light is blinking	• If the hard drive is playing back footage or recording, the light will blink to notify you that there is activity.
I am prompted to put in a password for everything	• PASSWORD ENABLE set to ON in the SYSTEM → USERS menu.
Cannot power off DVR	• The DVR is set to run as long as it is plugged in. • To power off the DVR go to ADVANCED → SHUT DOWN. • Disconnect the power cable once you see "YOU CAN UNPLUG THE POWER".
The hard drive fills up too quickly	• Check your video quality settings. A high video quality fills up the hardrive faster. Try lowering the video quality. • Adjust your schedule or resolution – If you are on Schedule Record for 24 hours a day the hard drive fills up faster. Try switching periodically to Motion record.
DVR beeps whenever motion is detected	• Buzzer is set to ON. Go to ALARM → MOTION setup and turn buzzer function OFF.
The DVR keeps beeping	• There could be video loss, HDD loss, motion detection or no HDD space on your DVR. The DVR can be set to alarm when these actions take place. The alarm alerts you if there is tampering with the camera to DVR connections. Check your connections and keep the DVR in a safe place where it will not be tampered with or moved around. • Disconnect and reconnect all camera connections to make sure they are snug and tight fitting.
The DVR is not recording according to my schedule	• Check to see if you have the proper time set on your DVR. Refer to the instruction manual under RECORD → SCHEDULE. • Check your schedule record times – you may have DVR set to "no record".
Playback video is choppy	• Check the FPS for each camera that is recording choppy video. Refer to your settings in the RECORD → MAINSTREAM section. The higher the FPS, the smoother the video. If the FPS is set too low, the video will appear choppy.

Troubleshooting

Cannot see all/one of the camera(s) on the monitor	• Confirm that the cameras are properly connected to the back of the DVR and to a power source. • If using the 4 to 1 power connector, make sure it is plugged into a power source and each of the cameras. • Check DISPLAY → LIVE → COVERT is not set to ENABLE.
I have lost video footage	• The cameras might have been tampered with. Be sure to check that all connections are secure and properly set. • The HDD overwrite feature is enabled. When enabled, the DVR will begin overwriting the earliest stored footage once the HDD is full. • Unplug the power to the cameras and/or DVR and plug it back in.
The cameras are not appearing in sequence mode	• Check if you have selected START ROTATE in the FUNCTION TOOLBAR. The cameras will start to sequence according to the sequence dwell time. • You must be in LIVE viewing mode. • To stop, click STOP ROTATE in the FUNCTION TOOLBAR.
Nothing is recording however all the images are appearing on the screen	• You must initiate the recording to start by pressing the RECORD button on the remote. • RECORD → REC PARA → RECORD to ensure all cameras are set to ENABLE. • Check your record schedule to make sure the DVR is set to record that hour. • Verify that the HDD is installed and formatted in the DEVICE menu.
The camera picture is too dark	• Adjust camera brightness settings under DISPLAY → LIVE → OUTPUT → COLOR. • Try moving your camera to a brighter location. • Make sure the camera is not pointing directly into a light source. • Your camera may not be getting enough light towards it during the day. Adjust the sunshade (top of camera) to allow more sunlight.
The night vision will not turn on/I can't see at night	• Night vision turns on automatically when the sensor detects a lack of light. If your cameras are in a space with too much light, the night vision will not turn on.
My DVR will not acquire an IP address	• Check the Ethernet connections, ensure that the connection lights are lit (on the router and the back of DVR). • Try using a different Ethernet cable and/or a different port on your router.
The NETWORK settings in the DVR menu have no information	• Be sure the DVR is properly connected to the router. There should be green link indicator lights if the DVR is properly connected. • Make sure the DVR IP Allocation is set to DHCP. This is a standard default setting that will work in most networking situations. • Power cycle the DVR to ensure it is properly connected and the IP Allocation is set to DHCP.
The DVR is not recording according to my schedule	• Check to see if you have the proper time set on your DVR. Refer to the instruction manual under RECORD → SCHEDULE. • Check your schedule record times – you may have DVR set to "no record".

Troubleshooting

Cannot view online footage using my external IP address	• Sometimes your router will not allow you to view the footage with your external IP address because the DVR is connected to the same router. Try typing the DVR's internal IP address in the address bar. • If using a port other than 80, add your port forwarded port to the end the IP address. • See the NETWORK section for setup instructions.
Cannot view the DVR through a remote Internet connection	• PORT FORWARDING may not be set up correctly. • The external IP address of the DVR may have changed. Try setting up a DDNS account to stay connected with the latest IP information. • The ISP may be blocking port the port you selected. Try changing HTTP Port to 5000. Be sure to reconfigure the port forwarding. • Refer to the NETWORK SETUP section of the manual for detailed instructions on REMOTE VIEWING setup.
The browser keeps freezing/I can't play the footage	• Make sure you have an up-to-date browser to view the footage with the proper ActiveX options. • Make sure the browser is Internet Explorer. The software will not play on any other browser. • Download all Windows Updates to make sure you have the latest version of Windows and Internet Explorer.
The video is choppy when viewing live footage online	• When multiple Users view the DVR at the same time, it slows the connection to the DVR. Try accessing the DVR at a later time. • The speed of your Internet connection may be too slow. Check with your ISP if the video seems to be choppy no matter when you check it. • It is normal to experience a small time delay between the live footage and the network viewing.

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